



JanLeonardo Woellert · Joerg Miedza

# Painting with Light

Light Art Performance Photography

rocky**nook**

# Painting with Light

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JanLeonardo Woellert · Joerg Miedza

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[ Meyenburg near Schwanewede · Dolmen · KnightVonHagen ]

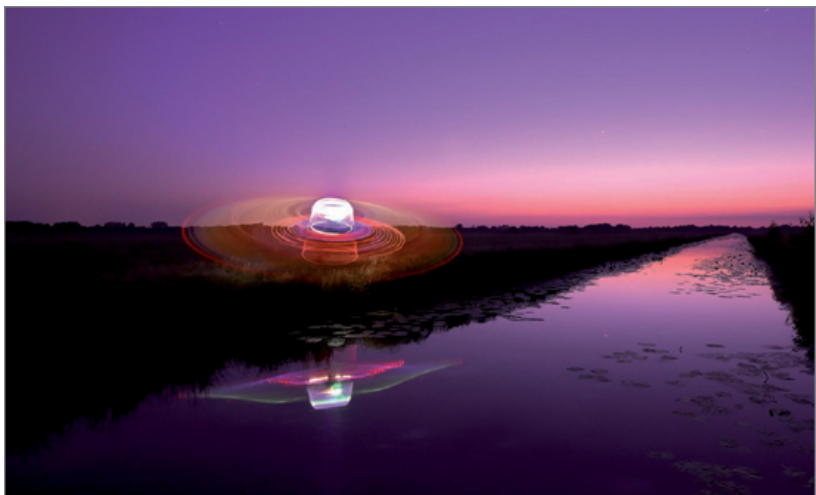


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- Our families, for their fantastic support and for giving us the freedom we need to spend our nights making art and our days sleeping

*JanLeonardo Wöllert and Jörg Miedza, August 2010*



[ Höftdeich · Waterway · UfoContact ]



## Foreword

The first time we met Rudolf who was to become our editor at the German publisher dpunkt.verlag, the nights in our home town of Bremen were still long and unusually cold. Winter is our favorite time of year, which gives us the time we need and the clear, high-contrast, and atmospherically dense scenery we require to stage our Light Art Performance Photography pieces.

At the time we had been wondering how to make our work available to a broader public. We were already considering writing a book when dpunkt.verlag of Heidelberg turned up and helped us to make our idea a reality. We met Rudolf for lunch on a dreary winter day in a hotel in Bremen and so it began.

Our initial plan was to publish a coffee table book of large format images to provide the reader with maximum visual inspiration. This idea eventually turned into the Gallery sections of this book. The text, which we originally wanted to use to caption the images, took on a life of its own and grew to encompass field reports, background information, and instructions on how to make your own LAPP images. The book you are now reading includes not only numerous images, but also elements of our philosophy, our approach to our work, and explanations of some of our LAPP techniques. Two in-depth interviews describe how LAPP has become what it is today, including important milestones such as our first successful “Light Ball” or the “Lightman” suit. We also discuss the tools we use, the relationships between LAPP and music, and much more.

One chapter describes how selected pieces were made, including details about the location, the original concept, the execution, and technical parameters such as the aperture and exposure time we used. The Making of ... chapter goes on to explain the individual steps in the creation of a LAPP image. However, this is not a paint-by-numbers book, so our blueprints, the technical details of our lights, and our choreography remain our secrets. Primarily, we want this book to encourage photo enthusiasts and light artists everywhere to go out and make their own art.

We look forward to your reactions, and you can contact us directly at [info@lapp-pro.de](mailto:info@lapp-pro.de) or via our website at [www.lapp-pro.de](http://www.lapp-pro.de).

*JanLeonardo Wöllert and Jörg Miedza, August 2010*



[ Bremen · Güldenhaus · LightFace ]





Like all art, Light Art Performance Photography is born of activity.

*Vita activa*, the active life, requires courage. Many people lack courage and some are even anti-courageous, fearing the resistance that courage meets. But fear is discouraging: fear of learning, fear of doing, fear of love, and fear of life. If repeated failure allows fear to become part of a person's personality, it begins to dominate. This is when capitulation starts and inactivity causes life to lose its meaning. Surrogate repetition replaces authentic experience and the leisure time that remains after work is filled with the shallow diversions of commercial entertainment and mass culture. But entertainment is only an artificial, second-hand reality.

A human being embodies the potential to develop, but a personality can only mature if it is forced to overcome resistance. Just as great love is rarely possible without great pain, real art is never born of small change and simple ideas.

Art is capable of moving individuals or societies because it is based on movement. A work of art freezes a single moment in a complex process that is itself the result of a creative idea. Creativity is rebellion against the gravity of tradition and habit, and is often an act of liberation—creative people invent new worlds instead of subjecting themselves to the restraints of the existing one.

## Foreword by Rainer Opolka

I have known JanLeonardo Wöllert and Jörg Miedza for a number of years, and I am still constantly fascinated by the energy and élan that they bring to their work. The apparent ease and charm of their LAPP pieces make it easy to forget that these are not just simple snapshots. If you study the images, you will recognize not only the time and effort, but also the enthusiasm that goes into each and every one.

These images were created on warm summer nights as well in the grip of winter, when the night is at its darkest, and the sky at its clearest. The individual works were often captured with shaking hands—not because of the cold, but due to the almost child-like excitement the artists feel whenever they manage to escape the bright, loud machinery of civilization and use the still of the night to chase a prey that they can't really see, but nevertheless feel in the depths of their souls.

A light artist and color acrobat is not just interested in the results of these endeavors, but also in the processes used to create them. These processes give the artist new experience and help him to grow, producing not just works of art, but new aspects of his own personality too. The artist uses ideas and materials to create something that wouldn't otherwise exist. Producing art requires skill, and skill can only develop through action.

LAPP depends on sophisticated techniques and use of the right tools. High quality equipment helps to produce better results, but the photographic and artistic processes involved are what matter most. This book makes those processes public for the first time. But be warned—if you are looking for a manual that tells you how to make quick and easy LAPP pieces, you should stop reading now. You are sure to benefit if you browse, but if you want to master LAPP you have to understand the entire process and the often-complex techniques involved.

I recommend this book to anyone who has an inquiring mind—it is sure to open up whole new worlds of photographic and artistic possibilities.

*Rainer Opolka*

Rainer Opolka is the owner and general manager of Zweibrüder Optoelectronics, manufacturer of LED LENSER lamps.

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[ Wümmefeld · Reed ]





# Lapp 01

# **The LAPP-Story: How It All Began**

## **(Interview, Part 1)**

*This interview was conducted in Bremen by Rudolf Krahm for Rocky Nook on May 22, 2010.*

*JLW* Leonardo Wöllert

*JMg* Miedza

***Rocky Nook: LAPP is based more on a discovery than an invention, and makes a unique and fascinating story for our readers. What caused you to work with light and what were your first attempts at light art like?***

**JLW:** The LAPP story began in September 2007, when I happened to come across an old storage warehouse at the harbor in Bremen. I was taking photos in the late evening using some new lamps that I wanted to try out. My plan was to use the lamps for illuminating and accentuating details to produce a new type of contrast in my images.

I was fascinated by some old cranes that were located near an abandoned storehouse. The combination of the old building, the pier, and the dirt and junk surrounding me created a surreal atmosphere. I felt as if I had been transported 60 years back in time.

The dominant yellow light of the sodium lamps made my own lighting impossible, and the buildings had been unused for so long that they were almost completely dilapidated. The scene had a spooky kind of attraction. I don't know if it was my researcher's instinct, my natural curiosity, or just plain madness, but something irresistible drew me into the building.

It was quite dangerous in the dark without a flashlight or a headlamp. Most of the slides and tubes used for transporting and packing grain had been removed, leaving huge holes in the floor. The last breaths of a previous life, the dust of the decades, and all the junk lying around made the whole place really compelling.

Old telephones with their dials missing hung from the walls and a chair stood abandoned on the floor, signifying a past life. I was on a dangerous but exciting adventure, and I was suddenly

transported back to my childhood, which I spent in the countryside in old houses and barns full of old machinery.

***That sounds almost like an encounter of the third kind. Were you able to capture the atmosphere photographically?***

**JLW:** Once I had spent a few hours exploring, I began to take photos of the interior of the sheds. The light from the sodium lamps came through every window, joint, and gap and produced ghostly orange-colored light on the walls, doors, and ceilings. That evening I produced a lot of colorful, moody images with a fantastic range of high-contrast detail.

***Do you still have the photos?***

**JLW:** Yes, I still have the photos, and they are very special to me. The storage sheds were modernized floor for floor soon after my first visit, and the unique feeling from back then is gone forever. Jackhammers, explosives, and potential profit make it all too easy to destroy the past and our own human history. It is wonderful if we can at least take photos that bear witness to these bygone times. I wanted to preserve those moments for the times when they are no longer tangible.

***What led you to start experimenting with light within your photos?***

**JLW:** That was the result of a chance happening. During a shoot at an industrial plant, I adjusted one of my floodlights while the shutter of my camera was still open for a timed exposure. The lamp was originally positioned behind a steel post to hide the source of the light, and I accidentally walked straight through the frame carrying the lamp, producing a waving banner of white light across the whole image. As I saw the result on the camera monitor, I was immediately captivated by the effect I had produced.

***So that was how the basic idea came about. What happened next?***

**JLW:** The same evening, I began to develop ideas for using lights actively within an image. I tried out many kinds of lamps and lighting effects during the following months, and began to obsessively collect any lighting gear that I could get my hands on. I

waited eagerly for night to come so I could try out my latest lamps and effects at rivers, lakes, and the harbor. I wanted to understand completely how my new-found effects came into being, so my experience as a low-light photographer helped me a great deal during this process. “Drawing” with light to illuminate my subjects and set accents in a scene was just one technique among many, and the possibilities for capturing light with an image sensor suddenly seemed endless.

The now legendary “Lightman” suit is an idea that interested me right from the start. The suit is an overall with chains of LEDs sewn to its main contours. The lamps follow my moving silhouette and produce light trails of my movements in the captured image.

I eventually bought a full-frame Canon 5D DSLR with an ultra-wide-angle 16-35mm zoom lens. This setup significantly improved the contrast and noise characteristics of my long exposures.

***Jörg, when did you join JanLeonardo and how did your work together develop?***

**JM:** Jan soon told me about his new photographic experiences, and the creative potential of including light elements in his images. He explained his methods and showed me some of the impressive results of his experiments. Many long creative conversations followed, and we immediately planned a bunch of extremely complex choreographies that we couldn’t wait to put into practice.



*Photo: Rudolf Krahm*

We made our first joint piece in September 2007, and working

as a team suddenly made it possible to plan more complex, more adventurous performances. The initial phase produced a quantum leap in the variety of materials and lights that we used. We also quickly realized that we instinctively understand each other's ideas and we only have to exchange a couple of words or draw a line or two on a sheet of paper to communicate what we are thinking.

We also found that our very different characters complement each other very well, which is one of the reasons that we are able to work together so effectively. Together, we have a set of skills that you could only otherwise find in a large team, and teamwork is essential if we are to avoid conflicts when we are applying our various skills to a project.

Thorough planning is essential for producing our kind of light art, and our preparatory work often takes days, or even weeks. Some of our natural backgrounds, such as rape seed in bloom or crop stubble, only occur once a year. LAPP images are only successful if we are able to learn from our mistakes, and only a well-oiled team can survive the critical learning phase. We have always tried to turn our failures into lessons that contribute to our knowledge base. Our project partnership has now turned into a special friendship.

### ***How do you record your ideas and how do you turn them into reality?***

**JLW:** Reproducibility is an important element of our work. Many suggestions are quickly forgotten and don't get developed, which is why Jörg made sketches to clarify his ideas right from the start. I bought hard-backed sketchbooks, which we always use to write down or draw our ideas, however crazy they might be. We have always tried not to limit ourselves by considering whether our ideas are truly feasible. Some brainstorming sessions produce material for several nights' work in the space of just a few minutes.

We produced our first LAPP images using industrial lamps, but Jörg's technical and manual skills quickly had us building, welding, and cobbling together our own custom lighting tools from the lamps and other gear that I buy on the Internet or elsewhere. Now we have a huge arsenal of lamps, lighting gear, and pyrotechnics that is all sorted and stored in various boxes and travel cases. We usually set out for a session with two cars

completely full of equipment.

***In principle, LAPP is a completely new art form. Do you have any role models or are there any other artists who you look to for guidance?***

**JM:** There were no guidelines whatsoever, although the images on our website and a number of blogs have led to the birth of a “LAPP Community” of sorts. Many contributors see us as the inspiration and guiding force within the community, and our images are the motivation that leads countless new light artists to head off into the night! Many photographers have used our impulses to develop their own ideas and extend the LAPP idea. This is not only a great compliment, but also satisfies our desire to spawn creativity in others. We are very happy to be the spark that lights a bigger fire.

Learning leads to understanding, and every attempt to execute a new idea gives us new insights. In this way, we overcome the supposed disadvantage of being the first to try out new techniques. We began with a handful of ideas, our imagination, and endless trial runs, while stamina and a little self-confidence helped us overcome the initial obstacles. We can still spend the entire night on a project without producing a single satisfactory result, but we haven’t yet given up in desperation. Often, the very last image, taken after six or eight hours’ work in sub-zero temperatures, ends up being exactly the result we were aiming for. LAPP photography simply involves a lot of effort.

***That sound like a lot of hard work and trial and error ...***

**JM:** In theory, many of our ideas are simple to execute, but we often find that they cannot be turned into reality in the way we had visualized. But developing a completely new form of art makes it virtually impossible to fail. Even though the results are often very different from the original idea, many of our standard LAPP elements came into being during our attempts to produce something else. If you want to really come to grips with LAPP, you simply need staying power and a real passion for the night.

***Which piece of equipment gave you your first real breakthrough?***

**JLW:** The first real “lighting tool” that we used was an LED

LENSER flat lamp module—a lamp with a unique shape, frequency, and color spectrum. The LED lighting pioneer Rainer Opolka designed this lamp for garden lighting and other decorative purposes, and he probably wasn't aware at the time that his invention would become a well-known artists' tool. Or maybe he did have a hunch about how his idea might end up being used, which is why he named it the "Light Performance" model.

***Your performances often include the "Lightman" suit that you mentioned earlier. How did the suit develop?***

**JLW:** The "Lightman" suit was one of my very first LAPP ideas, and I began to include it in the images after just a few weeks. The suit traces the outlines of the person wearing it using chains of small LEDs sewn to an overall. The lamps produce fascinating light trails of their own and also illuminate details of the wearer's surroundings. The "Lightman" suit is already in its fifth generation and we have even more futuristic versions in the pipeline. Our tools have their own names, such as "Lumen Shower", "Universe", or "Planet Blaster", but they all serve our main aim, which is to provide controllable quantities of targeted, high-quality light.

***Is your arsenal of lights complete, or are you still on the lookout for new tools? Were there tools that failed along the way?***

**JM:** Alongside our own homemade tools, we are constantly on the lookout for new ways to produce and manipulate light. A piece of lighting gear is only as good as its light source, and price is of secondary importance to the quality of the light a device produces—artistically speaking, a dollar store bargain can be just as valuable as a professional flashlight. Current developments in consumer light sources are a gift to us and our work and nowadays, LEDs are starting to replace filament lamps everywhere. We purchase our lamps from all over the world via the Internet, and we have recently seen a great improvement in the quality of lamp sellers' websites. It is a great help to be able to see the type of light a lamp produces in advance of making a purchase. LED LENSER, our sponsor, gives us constant access to the latest lighting developments. In the spring of 2009, we spent two wonderful weeks with the company in China. We were allowed to check out the production processes first-hand and we spent every evening

trying out the very latest products in the field. The LED LENSER R&D department gives us access to exclusive prototypes that cannot be found anywhere else. But not all of our bought or home-built lighting gear was a success, and we have spent a number of long nights producing disappointing results. This can be a result of the wrong approach to a great idea, but also due to inappropriate use of an otherwise useful tool.

***Can you give us an example?***

**JLW:** (laughing) Of course! We still have 500 “Baby Rockets” in one of our cases somewhere. We wanted to order 100 of these from a store in Switzerland, but they were so cheap, we ordered a huge stock of different fireworks. The idea was to attach a rocket to a fishing line and shoot it across the room. The firing worked, but the rocket’s exhaust melted the fishing line time and time again. We were so frustrated that we gave up the shoot and ended up shooting Baby Rockets at each other. But we didn’t forget the original idea and we one day ended up using larger rockets and thin steel wire instead of fishing line. This time, the rocket flew in a perfect straight line as we had originally intended.

***Tell us about some of the major milestones in the development of LAPP.***

**JLW:** The “Light Balls”, the “UFOs”, and our floor lighting tricks are some of the most important developments we have made. After we made our first Light Ball public in September 2008, whole universes of similar orbs turned up on the Internet. This shape is particularly attractive to light art beginners, and looks like a living, three-dimensional computer graphic if performed well. Light Balls can be made to look hard and metallic or soft and feminine. We are continually impressed by the degree of commitment shown by some artists, and we know of several who dedicate all of their energy to producing perfect spheres of light.

***Many of your spherical and elliptical objects are reminiscent of the spaceships that were portrayed in the film “Close Encounters of the Third Kind.” Are there perhaps sci-fi undertones to your work?***



**JM:** That's certainly possible. But UFOs, flying saucers, time tunnels, and spaceships fascinate just about everyone. Jan and I were big Captain Future and Star Trek fans when we were kids, and "Beam me up, Scotty" was a mainstay of our childhood vocabulary.

The idea for our UFOs came to us after we built a light tube for a shoot with the Swedish EBM band Covenant in the fall of 2008. We spent a whole night at the Deutzer Harbor in Cologne with the electropop pioneers, and the band members were thrilled with the results. We constructed a surreal sci-fi-like scene with the three musicians in the center. This shoot resulted in "UFO-mania" in the light art scene, and we didn't want to see another UFO for a while after that!

In May 2008, during a shoot in a cornfield in northern Germany, a car screeched to a halt nearby and the driver ran up to us looking worried. Jan was wearing his Lightman suit and helmet and looked very much like an alien in the dark. The passer-by asked if he really had seen what he thought he'd seen, or whether it was just an optical illusion. We showed him some of our photos on the camera monitor and managed to calm him down. We still have to laugh when we look at the pictures we made that night.

***How did you gain the international recognition you enjoy today?***

**JLW:** We initially published our work on the German photo website [www.fotocommunity.de](http://www.fotocommunity.de), but it is through flickr that we have gained contact with a more international audience and the thriving international light art scene.

But it was our new website—which Jörg designed—that really brought us to the public's attention. Rather than presenting our work as part of a multimedia show on a conventional website, we wanted it to be more like a gallery where the viewer can concentrate exclusively on our work, accompanied by subtle but striking music. Jörg contacted various bands and asked for permission to use their music alongside our images. The result was a complex, internationally accessible photo gallery with professional sound. Six months later, we had had visitors from 140 different countries and feedback from all over the world. This was the start of an active exchange of information between various blogs and news portals that wanted to cover our new form of light

art.

We also received a lot of interest from the print media. We fielded requests from a number of high-end magazines, catalogs, and newspapers; and our images, that once were exclusively digital, began to find their way onto paper. Our archive of printed work now includes everything from a Canadian science magazine for kids to light design catalogs from Korea and Brazil.

***What kinds of people are interested in your work? Has the structure of your audience changed over the years?***

**JLW:** LAPP appears to have a positive effect on people everywhere who are interested in art and photography. In the beginning, we received mostly technical questions about how we produce our images and the tools we use. Nowadays, we get requests from art magazines who want to write about us, or from art galleries who want to sell our work. Our web stats tell us that 24 percent of our hits come from the US, 13 percent from Germany, and seven percent from Brazil and France.



[ Bremen · Unterweser · Beam next please ]





[ Ritterhude · Wümme · SnowSpider ]





# Gallery, Part 1



[ Bremen · OnTheRooftop ]







[ Bremen · Universum · ElectronRunning ]





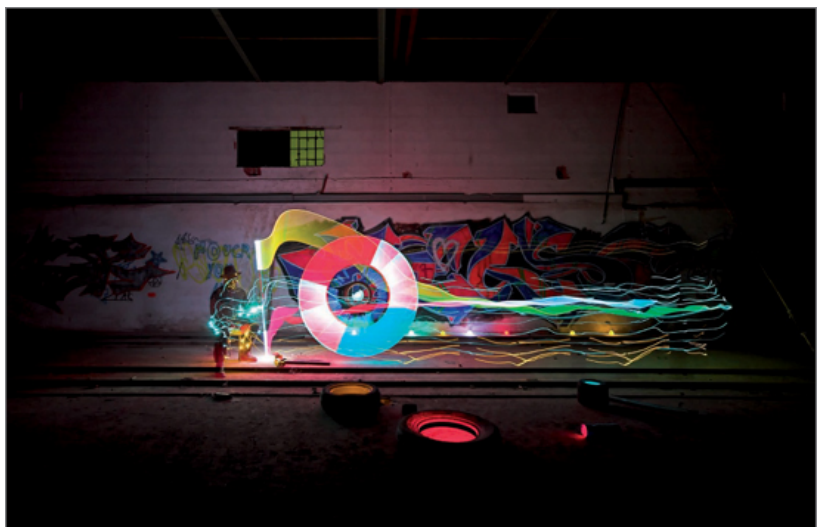
[ Bremen · MrBird ]





[ Worpswede · Hammebrücke · TowardsTheSun ]





[ Near Berlin - Brickyard · SittingBlack ]







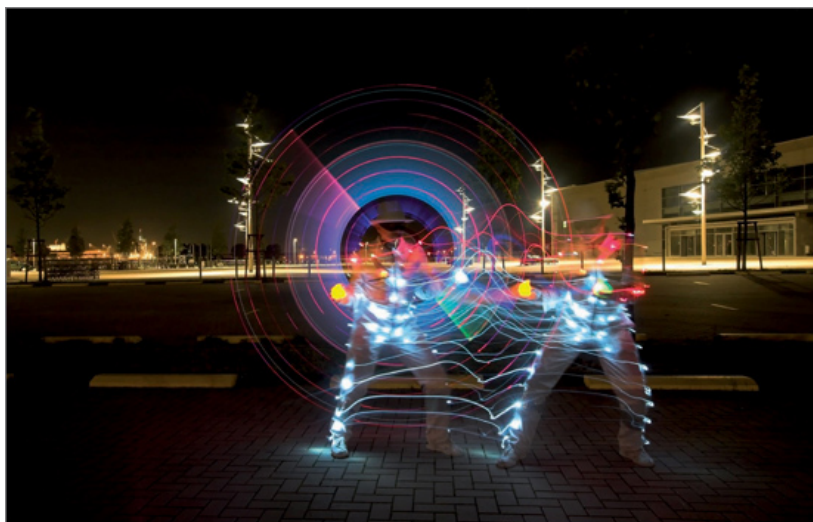
[ Near Berlin · Brickyard · HedgehogVsVortex ]





[ Near Berlin · Brickyard · WingMan ]





[ Bremen · SpacePark · ElectricBoogie ]





[ Bremen · ButterflyMan ]







[ Bremen · Universum · LightmanRotator ]





[ Bremen · TheColossus · FrequencyWheel ]





[ Hamburg · Warehouse district · CatchTheLightman ]





[ Bremen · Fish pass · Weser weir · PrimordialOrb ]



[ Bremen · Weser weir · Apparition ]







[ Bremen · Harbor · OrbRotator ]



[ Schwanewede · Family burial vault · Torches ]





[ Höftdeich · Wümme · SpaceBall ]





[ Bremen · Harbor · WhiteCritters ]







[ Bremen · Harbor · The FireCreature ]





[ Bremen · Harbor · Magician ]





[ Bremen · Harbor · Untitled ]





[ Bremen · Harbor · ChinaNights ]







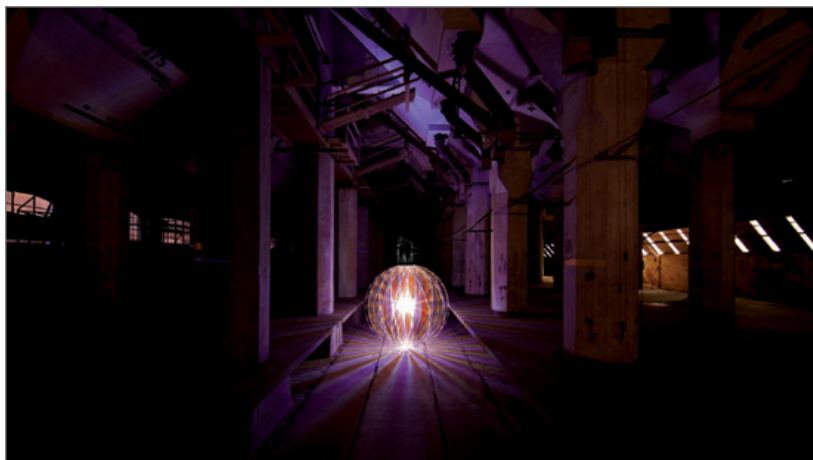
[ Bremen · Güldenhaus · BluePlanet ]





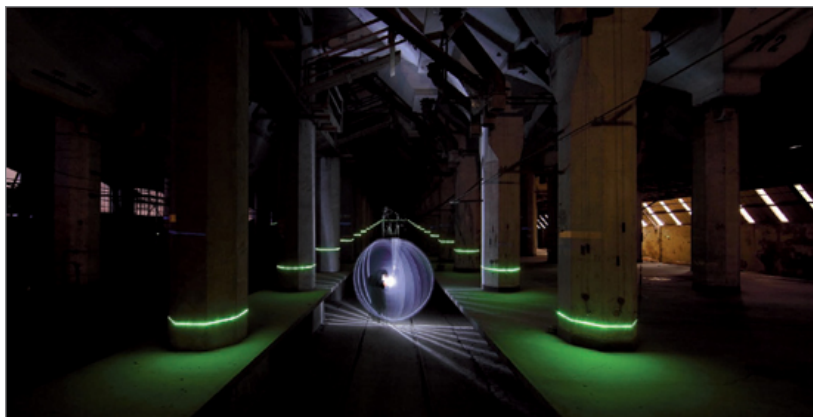
[ China · Cave · Lightball ]





[ Bremen · TheColossus · Arrived ]





[ Bremen · TheColossus · Spring ]

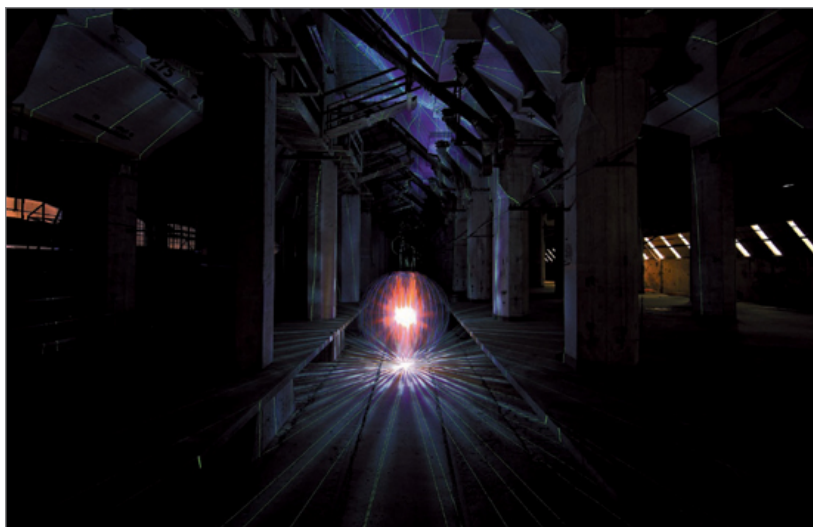






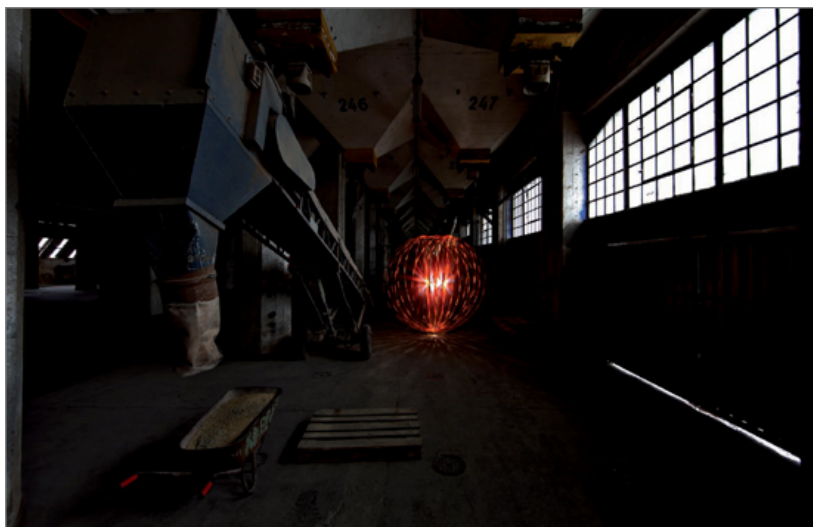
[ Bremen · Wheel · GoldenPlanet ]





[ Bremen · TheColossus · Orb · Laser · TimeCutExplosion ]





[ Bremen · TheColossus · Untitled ]

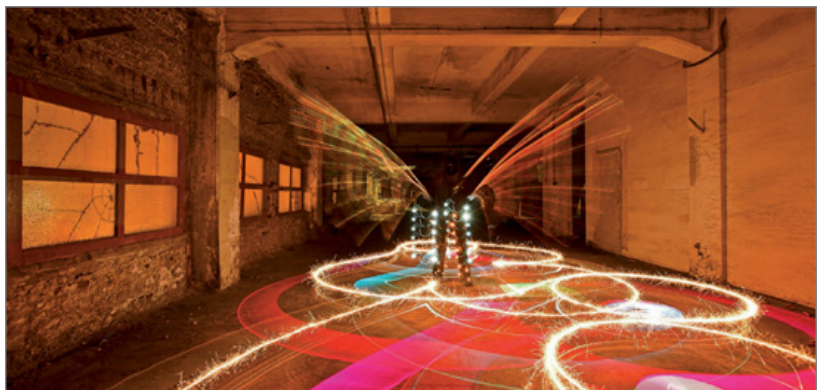




[ Schwanewede · Dairy · StarSheriff ]







[ Bremen · Harbor · Biancos ]





[ Bremen · Harbor · WhiteBat ]





[ Bremen · Court of justice · Untitled ]





[ Bremen · Wümmme · Sunrise ]







[ Bremen · Airport · Ghost ]





[ Bremen · Airport · Golf ]





[ Bremen · SpacePark · CLS ]





[ Schwanewede · MicraVsBus ]

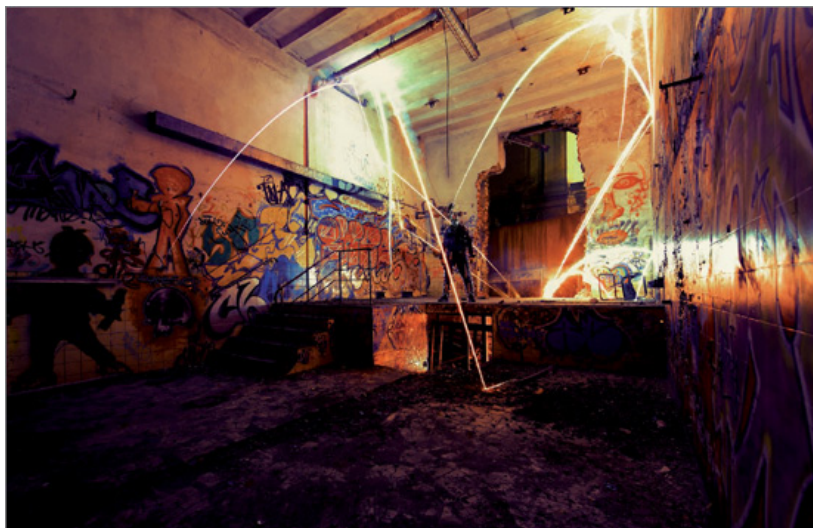






[ Schwanewede · Rapeseed patch · EnergySunrise ]





[ Bremen · Güldenhaus · CloneWarrior ]





[ Bremen · Güldenhaus · Clonewar ]





[ Bremen · Technology Park · TransformerTransport ]







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[ Bremen · Harbor · Freeze ]





[ Bremen · BIG · TwicePolice ]





[ Hamburg · Warehouse district · Untitled ]









[ Bremen · TheColossus · BackToOdoradia ]



# Lapp 02

# What is Light Art Performance Photography?

Photography is a 200-year-old method of light painting that uses an optical recording mechanism to “freeze” people, places, and objects into images that remain for posterity. Preserving precious moments has become an especially important activity in today’s fast-moving world. Technical developments in the world of photography pursue increasingly complex aims and there is, as yet, no end in sight. ISO values above 10,000 seem almost normal and still cameras that can shoot sequences of images at speeds of more than 10 frames per second threaten to overturn video technology. If a shoot actually involves leaving home, the photographer will return to the studio or computer with countless gigabytes of new material. Nowadays, many scenes are artificially reconstructed, and if the results are still not satisfactory, the artist can always enhance recorded material digitally.

It is probably only a matter of time before still cameras completely overshadow separate video or film cameras and close the gap between still and moving images. If this scenario becomes reality, photography as we know it will simply cease to exist—in the future, videographers will simply press a button at the start of a session and select and process the appropriate full-resolution images from the terabytes of streamed data that have been captured.

The word photography comes from the Greek “photos” (light) and “graphé” (drawing). Subconsciously, Light Art Performance Photography has been dedicated to these roots from the start and has given the original definition of the photographic medium new meaning while re-introducing calm to the process of creative photography.

You need time and patience to execute LAPP performances. These images are not produced on a computer—every element of each image is captured during the course of a single exposure. A LAPP photographer produces the colors and shapes in a piece just like a painter sets up an easel, applies layers of color, and adds details to produce a finished picture. A LAPP photograph is a

symbiosis of photography and performance, and merges the activities in front of and behind the camera into a single act.

LAPP is a slow, methodical process aimed at producing a single image composed of multiple individual elements. Light art, choreography, and complex shooting methods are combined to form the final Light Art Performance Photograph. In some ways, the result is like an entire film that has been captured in a single image.



[ Schwanewede · Dolmen · FourDaVincis ]



# Initial Considerations

First and foremost, a light art photographer needs to know how to use an SLR camera in low light and nighttime situations. This is the basis for the rest of the process, which requires creativity, imagination, and a whole bunch of fresh ideas to create the individual light elements in an image. Experience and experimentation are the basis for new ideas, and the effectiveness of some light elements is only obvious once you try them out. For example, the layering and transparency effects of a light trail that you paint outward from the center of the frame has a completely different effect than one that moves from the edges of the frame toward the center.

The most important tool of all is the photographer's eye. Your eyes help you to orient yourself on a dark set. Many photographers find it difficult to associate and interact with their surroundings when working in the dark, so it is essential to acclimate your eyes for low-light work. It is also important to find the right location and the best possible camera position when shooting a particular type of light element. The background of a light art piece plays a role similar to the background music in a film—a science fiction film with a folk music soundtrack could be confusing for the viewer!

Digital live view and programmed automatic mode are great aids to light art photography, and help the photographer to gain an impression of the surroundings without having to make “real” long exposures. To operate reliably, camera metering and focusing systems usually require more light than is available in nighttime scenes, but the human eye is still capable of much more detailed perception of focus, framing, and composition than a camera monitor or preview image.

Human perception and imagination are the major tools that allow a photographer to visualize a scene, and our projects often start with someone saying, “Imagine what it would be like if we ...”. The resulting fantasy images then become the core of a project, and we develop the ideas for the individual elements, initially without considering how we will actually photograph them. This phase of a project is purely creative, and serves to give



our ideas color and shape.

Our fantasies mesh pretty well and we are actually capable of imagining images together. We have found that our collaboration increases our creative potential exponentially, producing an effect that is similar to a successful band whose individual members produce a complex overall sound.

Once we have pulled our initial ideas into shape and a project has found its general direction, we start to think about the technical side of things. Which tools do we need to create our imagined scene? Which shapes and colors do we want to produce? This is the point at which we begin to make sketches of our ideas. We are still very much at the creative stage and camera settings are still of secondary importance.

Researching the location and planning the necessary light elements takes hours or even days, depending on the complexity of the project we are working on. If a project involves climatic or seasonal elements, we might have to wait for as long as a year before we can go ahead with production. For example, there are only a few days in each year during which we can photograph rape seed in bloom under the light of a full moon. LAPP pieces don't depend on monumental scenery like the Eiffel Tower or the Pyramids at Giza, but we still need to use our contacts to get permission to shoot if we want to remain undisturbed while we work. We usually work all night, and we certainly make an unusual sight as we dance around in the dark with our lights, our suits, and our fireworks. The police have shown an interest in our strange behavior on several occasions, but a look at some of our images usually defuses any tension and often wins us (and our art) new friends.

There is no such thing as a LAPP studio with lighting and scenery that suits our way of working. Human eyes have the enormous advantage of being able to adjust to darkness, making it easier for us to predict how the results of a shoot will look. We always try to keep our backgrounds looking realistic, and the long exposure times and complex lighting give the viewer a wealth of detail to discover in every LAPP image. Capturing a single LAPP image can take as long as 10 minutes, and even test shots can take several minutes while we wait for the camera to make a dark frame and reduce image noise. Once a test image is finished, we use it to work out which elements of the image need to be changed

or adapted to suit our original intentions. This is where we fine-tune the intensity of the various light elements to produce our desired look. Once the active light elements have been captured and extinguished, we continue to expose for the dark, passive background. This way, we can produce properly exposed images, even if the individual light elements are too bright at the moment they are exposed. A single step in the wrong direction or a slight stumble can spoil an entire shot, and we have to be especially careful when we are using fireworks—a lamp can be simply switched on or off when we need it, whereas the behavior of fire, wind, or clouds is unpredictable and cannot be controlled. If this type of element is part of the scene we are shooting, we give it top priority and construct the rest of the image around it.

LAPP images are thus very similar to traditional diorama shows, with fantasy elements superimposed on ultra-realistic backgrounds. The Light Balls, UFOs, and ground lights give an image narrative depth. This combination of the real and the surreal makes our pictures coherent and makes it possible to tell complex stories in a single image.

Light Art Performance Photography combines real-world scenery with transient lighting effects to produce unique scenes and microenvironments. The light-based elements of the images cannot be perceived by the human eye alone, and shapes like our “Light Balls” can only be captured using an image sensor, the same way a painter captures a brushstroke on a canvas. The light shapes in a LAPP image would appear as single bright points if it weren’t for the camera and its hi-tech image recording mechanism. The human eye functions in a way similar to a video camera, perceiving endless sequences of infinitely short moments, and presenting us with a never-ending movie that is only brought to a halt by a photo. It is always intriguing to take a break from time and spend a while observing a single moment.



[ Beelitz · Spiral ]



[ Meyenburg · Rapeseed patch · AtomicLightball ]





# Shape, Color, and Emotion

## Shapes and Colors

A traditional poet expresses feelings and thoughts in words. However, poetry in a broader sense can be expressed in a variety of other forms too, including color and sound. The power of poetry is its ability to record and express feelings and emotions, regardless of the medium it uses to do so.

Interaction and reaction are important elements of Light Art Performance Photography. A breathtaking sculpture made of light is reduced to a transient moment in time if it is not portrayed in front of an appropriate background. It is only when a light sculpture is fused with its surroundings that it begins to tell a story and produce thoughts and feelings in the viewer. A Light Ball becomes a threatening alien when it is portrayed against the background of a bleak warehouse, and a figure of light becomes an angel when it floats above a prehistoric burial mound. The individual light sculptures embedded in the background scenery are comparable to a poet's combination of words and allusions. A light artist constructs and places the elements of an image the same way a poet uses the meter and rhyming scheme that best suit the subject at hand.

A light artist is constantly searching for “light words” that express creative thoughts in a performance. A LAPP image is composed by changing the rhythm of the movements and enhancing and adjusting the background to turn the individual elements into a rich and tangible whole.



We have found that some of our photos appeal more to women than men, while others appeal to younger rather than older people. Some people find the way that we shed beautiful light on otherwise dark corners particularly pleasing. The omnipresent shapes and colors produce widely differing reactions in viewers—in other words, the images produce strong feelings. A vast majority of viewers talk about the wondrous atmosphere our shapes and colors conjure up. Light, shape, and color are wonderful tools for producing and manipulating feelings of calm and security or cold and confusion. A glowing campfire on a beach produces completely different feelings than a cold laser beam illuminating an industrial ruin. Some images contain smooth, rolling elements in warm red tones that make you want to reach out and touch them, while others contain optically “loud” fireballs that the observer prefers to view from a safe distance. There are no rules when it comes to using shape and color, and anything that can be drawn can be recorded by an image sensor. A LAPP artist can use light to create any number of atmospheric elements in an image.

## **The Effects of Space and Individual Image Elements**

LAPP shoots rarely take place in or around new buildings. We tend to shoot mostly at locations where life and daily activity are things of the past. Old scenery has a heavy influence on our work and helps us to develop and emphasize the differences between “was” and “is”. Surroundings that are used up and discarded are often dirty and broken, but we always leave them in their original state when we use them as a stage. The contrast between our bright lights and the dilapidated backgrounds we use sometimes appears paradoxical, and we complete the picture by adding our light figures to create an other-worldly scene that didn’t previously exist. The resulting images present the viewer with figures and forms that are somehow recognizable, but nevertheless strange and magical.

The best locations for our work are far from any studio and give us the privacy we need to take our time experimenting. These are places where there is no extraneous light and no spectators to ask awkward questions. Places where we have the time and space to fully develop our ideas. Many commercial photographers don’t have time to wait for the rain to stop or to get a feel for a location



and its surroundings. If you don't have time, you won't be able to produce unusual images. In a studio, you simply cannot produce hundreds of meters of fog that glows mysteriously in the wan moonlight, or a light southerly breeze that gently blows clouds through the frame.

The many nights we have spent shooting in natural environments have provided us with countless exquisite experiences. Sights and sounds that we didn't initially notice began to filter into our consciousness. These are unique moments in nature that cannot be duplicated in any studio on Earth, and that we experienced by learning to engage completely with our surroundings.

## **Types of Long Exposures**

In day-to-day photographic situations, we combine exposure time, aperture, and ISO sensitivity values to help us produce shake-free photos handheld. To fully understand the LAPP approach to photography you also need to understand the types of long exposure you can make using a modern DSLR.

### **Traditional long exposures**

The darker it gets and the less light there is available, the longer the exposure times we have to use. Exposure times of 1/15 second and longer require the use of a tripod and a remote shutter release, making them complex and time-consuming. Long exposures can be seconds, minutes, or hours long and cannot be effectively shot handheld.

### **Night landscape photography**

Long exposures used to be strongly associated with evening and twilight photography. At this time of day, exposure times are still manageably short. Nowadays, photographers tend to wait until it is completely dark to take low light photos, due to the increasing numbers of cars and people that produce extraneous light around the clock. In summer, absolute darkness begins at about one o'clock in the morning, and the countryside is only lit by moonlight or light pollution from nearby towns and cities. Under such circumstances, exposure times at ISO 100 quickly extend to 20 minutes or longer. This approach, with its residual atmospheric

light, allows the photographer to produce highly saturated colors and a lighting mood that is completely different from any that can be shot in daylight.



## Performing with Light

Light is extremely versatile, and can appear spreadable, viscous, intense, or even loud. Light can vibrate, pulsate, or produce harmony. If you use the right technology, you can change the color of light, mix different tones, or introduce texture, just like a painter mixes colors on a palette to produce a screaming red or a harmonious turquoise.



Light is made of color—a phenomenon that can be visualized by using a prism to split daylight into the colors of the rainbow. The digital LEDs we prefer to use mix red, green, and blue to produce a range of tones that include white. If we shake one of our light sticks, the frequency of the movement reveals the different tones

that are mixed to form the base color. We use our knowledge of frequencies, color mixing, and color components to produce specific effects.

A painter considers in advance which colors a picture should contain before mixing paint with fluids or sand to produce texture. The artist then applies a combination of experience and technique to produce a finished work using the chosen materials.

We prepare for our work with light in a similar way. The first step in producing a new LAPP piece is to set up the basic background lighting, the same way a painter primes a canvas. The basic mood can vary from dark and secretive to gaudy and audacious, depending on the color, the amount, and the distribution of light we use. We use varied colors as well as light with different color temperatures (i.e., cold and warm tones) to achieve our effects.

In addition to creativity and good three-dimensional perceptual skills, a LAPP artist also has to have stamina and good body control. It is the precise choreography synchronized with the mapped movements of the lights that make it possible to construct objects made of light in the space provided by the location.

While a painter has a model, a landscape, or an imagined scene to work from, we use our sketches to help us direct a scene and to reconstruct it should we make a mistake during a performance.

We achieve the necessary brightness for our performances in one of a number of ways. The simplest way is to tune lamps that have built-in dimmers but, if necessary, we can also construct the entire performance to provide light levels appropriate to the overall look of a piece. The precisely defined steps in a performance allow us to position each part of the setup individually, although it doesn't always make sense to reposition some elements. We generally set up the ground or background illumination first, and add muted accents later. This way, we can be sure of merging the background and the detail lights into a harmonious whole. For example, if we want a Light Ball to appear as an obvious, "hard" foreign body, we will draw it toward the end of a performance to preserve its hard shadows and sharp-edged lines. However, if we draw a ball halfway through a performance, the background lights will weaken the shadows and reduce the sharpness of the individual light trails, causing the ball to blend

more into the background.

## **Emotions**

Working at night is a unique experience. Your awareness is heightened and your eyes get used to the low light, allowing you to see shapes and textures that are normally invisible.

The daytime is ruled by people and their hectic activities, whereas the calm of the night is dominated by nature, landscapes, and architecture. The night gives us the opportunity to enjoy many of the details that we miss in the hustle and bustle of the day.

Have you ever heard the call of a nightingale or a tawny owl? Do you recognize the noise that a hedgehog makes as it nuzzles its way through the dry undergrowth? Have you ever heard the cracks in the ice on the surface of a frozen river slowly spreading out? The night has a language all its own, which our imagination sometimes turns into a horror show. In the night, a creaking window can turn into a shrieking poltergeist and it sometimes requires courage and a firm belief in the non-existence of ghosts to shoot at night in a disused granary built a century ago. It might sound funny, but if you are alone, you really can end up running away from situations like this. We would also like to warn against watching horror films before going out on a night shoot—your subconscious is sure to conjure up inappropriate scenes in your mind when you hear the real sounds of the night. We know from experience that fighting tomcats can sound like wailing children or screaming banshees, and that our imagination can turn an inquisitive horse into a monster on the attack.

But more than anything else, the night represents freedom in multi-faceted forms. You just can't beat the feeling of shooting on set on a warm summer night, with music coming from the car radio and a cold drink ready in the cooler. These are elements that a studio photographer or a graphic designer sitting at a computer simply cannot incorporate into the work they are doing.

## **Fusing Photography with Performance**

Many hobby photographers are not aware that they can shoot photos using shutter speeds longer than 30 seconds. The creative part of a taking a photo is limited to composition, making camera settings, and framing your subject to make the most of the

available light.

Adventurous photographers on the lookout for creative influence might wish to intervene in the composition of a photo during the actual exposure. The solution here is to use timed long exposures. Using long exposures creatively in daylight is virtually impossible, even at very small apertures. Deliberate long exposures in daylight generally cause massive overexposure. The only way to use light creatively during an exposure is to shoot at night. But a long exposure alone is not the key to producing LAPP images. You need to create a performance that you execute while the shutter is open if you want to produce light drawings.

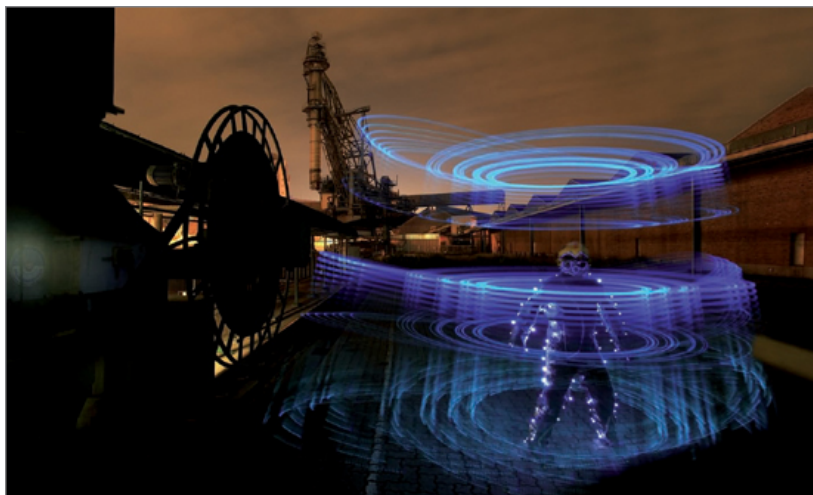
A performance is a form of artistic expression, although the lack of a proper definition leads people to have very different ideas of what performance art entails. In the case of LAPP, the performance encompasses choreographed light figures as well as the precise planning that makes them reproducible at other times and in other places.

Some people expect to see a live performance when they first read about LAPP, and this expectation has brought us some invitations to perform our light sculptures live on stage.

LAPP is a mixture of photography and light art, elements that are combined during the performance. Many of our pieces consist of thirty or more individual movements that are combined with specific lighting effects, so the planning of a performance plays just as important a role as the actual execution.

This complexity makes our work virtually impossible to copy, and the special relationship that develops between the photographer and the performer ensures that we produce unique results.

The opportunity to actively alter the image during the exposure and the virtually endless compositional possibilities make this form of art especially attractive to creative free spirits. This is probably one of the reasons that light art has recently become so popular.



[ Bremen · Grain Harbor · Beam ShitWrongPlanet ]



[ Bremen · Potash repository · TwisterBlack ]







# The LAPP Story: Sponsors, Influences, and Milestones (Interview, Part 2)

*This interview was conducted in Bremen by Rudolf Krahm for Rocky Nook on May 22, 2010.*

*JLW: Leonardo Wöllert*

*JMG: Miedza*

**Rocky Nook:** *How important are Rainer Opolka and LED LENSER lights to your work?*

**JM:** Among all the lights we have bought and tried over the years, the ones made by LED LENSER definitely stand out from the crowd. They are bright and robust, and offer innovative designs. At the start of our LAPP “career,” I was already thinking about how to develop our collection of equipment, and we weren’t sure whether we really wanted to invest all of our money in flashlights. It became clear that we needed to find a sponsor who manufactures lighting gear, which is how we ended up showing some of our images to the people at LED LENSER.

Jan initially spent half a day there, and came back with a lot of positive feedback and some ideas about the kinds of LED lamps the future might hold. This was the beginning of our partnership with LED LENSER and Rainer Opolka. Rainer appreciates art and showed a great understanding of our work from the start. We instantly got along well together, and he wasted no time in inviting us to go to China with him; soon after our first meeting we found ourselves on a tour of the LED LENSER factory.

**JLW:** This was when Rainer offered to build custom flashlights to our own specifications. For example, we had always wanted a focusable ultraviolet lamp—a piece of gear that is simply not available anywhere else in the world. Our partnership grew and blossomed and Rainer took on the role of our sponsor and adviser. He doesn’t just make lamps for us, but also takes time to talk about our plans and to swap ideas, creating a true partnership in the process.

**JM:** We also swap technical ideas with Rainer. If we tell him we'd like to have an LED lamp that doesn't just have an on/off switch but can also be dimmed or programmed via USB to blink at a preset frequency, he will talk with us about what is and isn't possible. The partnership with Rainer and his company goes beyond business and is an important resource for us.

***You didn't just visit the factory; you also made some very impressive LAPP images of lakes and cave systems in the Chinese countryside. These are very different from the photos you make at home. Are they just the product of a different environment, or are they the result of using different equipment and new techniques?***

**JM:** When we first arrived in China, we were immediately shown some of the company's new products, including a high-intensity parabolic lamp that produces a beam as bright as a car headlamp using rechargeable batteries! This was a perfect opportunity to use the new lamp to show nature in all its glory. We travelled to the Detian waterfalls near the Vietnamese border and Dongping on the South China Sea, visiting some fascinating flowstone caves along the way. In these locations, we had sufficient space to bring out the best in the new, bright lights. The resulting images were less detailed than our usual work, and were designed primarily to show off the intensity of the new lamps. Rainer put some of his English-speaking staff at our disposal, including his product development and quality control managers, and we spent two weeks on the southern Chinese coast with our new colleagues. They quickly understood what we were trying to achieve and helped us to get the results we were looking for. They made it possible for us to shoot in unique settings on all of our night trips. We set off every evening at dusk and, returning at 6 am, the two of us fell into bed while the others went off to work as usual. They allowed themselves a break at 3 pm, and joined us for more night-time adventures at six—what a crew!

**JLW:** (laughing) Initially, we hadn't realized how hard they worked, and every time someone yawned we asked ourselves why and made jokes about working longer (more laughter). They only told us later on that they went straight to work after every session. They admired our intensity and our single-minded approach. They also seemed to admire our precision and even our nitpicking, and

seemed keen to prove that they understood the “German attitude”, as they called it. As soon as we found out just how hard they had been working for us, we insisted that everyone got enough sleep before starting a new night’s work. We got a great routine going in the end.

**JM:** We worked with extreme precision and endurance in China. We worked every evening, travelling around in a large limousine that had more than enough space for our gear. Some of our more exposed locations couldn’t be reached by car, so we often had to make long treks carrying heavy gear. The mountains around Dongping provided particularly difficult terrain. I remember how Jan was surprised by a wave while sitting on a rock in the China Sea at 11 o’clock at night. He was so focused on his work that he simply stayed put so as not to spoil the image. I think I would have been scared of being washed out to sea, but Jan is oblivious when he’s on a roll. And he worked through to 3 a.m. with wet pants too!

**JM:** Rainer is very honest with us if he thinks we could have done something differently or if something is missing in our images. For instance, he said that some of our Chinese nature images lacked depth. We had to swallow hard, but we also realized that he was right, and set off immediately to re-shoot some of the same locations with more detail and depth. The results proved that it had been worth the extra effort.



**JLW:** Another time, he looked at our images and simply said, “There are a lot of these I can’t use.” Then he paused and said”, ...

but that doesn't matter because they're really beautiful." This was one of the many occasions Rainer has shown that he isn't just interested in exploiting our work.

***You made LAPP images for the Swedish band Covenant. How important is music to your work? Are you planning any further crossover projects that include music?***

**JM:** Music began to play a role in our work while we were building our website. Up until then (mid-2008), we had presented our images at public photo portals and had received a lot of useful feedback. Once I had come up with the idea of our own website, it was clear to me that it had to be an audiovisual experience. I wanted to create an atmosphere that invites the viewer to stay a while and look around. In this environment, the music enhances the atmosphere and produces emotions the same way as a film soundtrack. Choosing the right music is difficult because sound can easily change the appearance of color. We generally use cool, synthesizer-based electropop for our presentations. We now have personal contact with artists like Tom Shear from Assemblage 23, Stefan Poiss from mind.in.a.box, and Eskil Simonsson, Joakim Montelius, and Daniel Myer from Covenant, as well as other prominent electro musicians. Some of our images and the sounds we use have also earned us some feedback from the Goth scene and, in late 2009, James D. Stark joined us to support the musical side of our work. His arrangements are influenced by Depeche Mode, Martin Gore, Iris, DE/VISION, Seabound, Beborn Beton, and Wolfsheim—all artists who are on my wish list for future projects. It is not always easy to make direct contact with musicians whose work we want to use, but the feedback is often extremely positive.



[ China · DongPing · Untitled ]



***How did your work with Covenant take off?***

**JM:** We had a strong mutual interest in each other's work from the start. They had seen our pictures and asked us to prepare a shoot while they were on a trip to Cologne, so we found a suitable location at the old Deutzer Harbor site and went on a night shoot together. It was important to the band that they were included in the images, and we had a lot of fun making them.

**JLW:** Music works like an emotional amplifier, even when the images themselves are already quite intense. Jörg is the one who has a strong instinct for which music suits which image. The effect of the music was obvious when we showed Rainer Opolka a video of our Chinese images. Which music was that, Jörg?

**JM:** That was the title track from Eric Woolfson's *Freudiana*, which was perfect for the Chinese photos. I also used "He Lives in You" by Lebo M. from *The Lion King* in a different version of the clip, which also produced great results. The effect of the images is all the more intense thanks to the music. If I could, I'd organize it so that our viewers could smell our images too!

***Your image that won the scientific photography prize reminds me of Thomas Dolby's 80s hit "She Blinded Me with Science". Which aspects of the scientific world did you want your image to convey?***

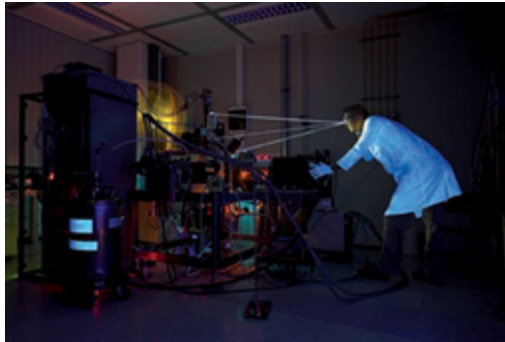




**JM:** In short, the idea was to use photography to make science visible. Science plays a part in so many aspects of our daily lives that it has become mostly invisible. For example, when I'm replacing roof tiles at home, I don't think about what the coating on the tiles is made of or how it got there. Our art is primarily involved with making things visible in a special way, so it was easy for us to identify with the task at hand. We had three locations to choose from and we eventually decided to go with the Electron Energy Loss Spectrometer (EELS) project at the University of Bremen. This is a huge machine with no obvious purpose—it could be a musical instrument or an atomic bomb. The way we understood it, the machine fires electrons that produce extremely flat surfaces. The scientist's point of view was an important aspect of the shoot, so we symbolized this with rays of bright light that seemed to emanate from his eyes. These “rays” are actually pieces of thin plastic tubing that light up from the inside. We also wanted to emphasize every single detail of the machine's dials and displays. Some LAPP locations look great without too much subsidiary lighting, but the spectrometer was unfortunately not one of these. It looked completely unspectacular in the weak laboratory

light, making it necessary for us to accentuate every possible detail in addition to emphasizing the purpose of the machine itself. Only then were we able to get on with the actual task of making science visible.

***I like the way the image gives the scientist just as much emphasis as science.***



**JLW:** Wolfgang Volz, who is not only a member of the jury, but also an internationally successful scientific photographer with over 20 years of experience, confirmed that our image managed to successfully combine the complexity and the results of the experiment with the scientist, without whom science wouldn't exist in the first place. Some critical LAPP fans complained that we won the prize with one of our "worst" LAPP images, one that contained virtually none of the effects we are known for (laughter).

***So the real artistic achievement was to move away from your usual processes. What are the differences between LAPP and other, better-known forms of light art, such as light writing or light painting? How do you differentiate yourselves from other light artists?***

**JLW:** In the beginning, our art was called various things, including "light painting", "light sculpture", or "light graffiti", but none of these actually embody the most important part of our art, namely: the performance. Our performances consist of as many as fifty carefully planned and executed steps, and we have worked hard from the start to accurately define what we do. We have been allowed our own Wikipedia entry, but the editors haven't allowed

us to call ourselves the inventors of the form. We hope that this book will help to change all that, and feedback from our worldwide fan base confirms that many people think it should.

Light painters and light writers often create images in which the light object itself is the subject, with no discernible background. Or at least they did when we started out in 2007. Since then, many photographers have adapted their techniques and nowadays it is unusual to find light art that doesn't include a detailed background. Our images always integrate the light elements with the background, and the stories we tell depend on the interplay between these two elements. In order to combine objects with their surroundings, we have to accurately judge the strength of the ambient light and provide enough lighting power to make the immediate environment visible. We also do what I call "accenting", which involves systematically highlighting selected background details. This way, I can decide exactly which parts of a scene are visible in the final image, giving me complete control of the contrasts I create.

### ***Who is responsible for what when you are working together?***

**JM:** We are both performers and photographers. Away from the set, we both deal with requests from magazines, galleries, and agencies, and agree together on how to approach projects with other artists. Jan is responsible for our presence on the fotocommunity or flickr websites. Jan is very good at defining and explaining what's different about our art, for example, if people claim that it's all been done before. I look after our website and the music we use, and I am also chief tinkerer when it comes to building new LAPP lighting gear.

### ***Where is LAPP headed? What new tools and ideas are you developing?***

**JM:** We would like to encourage other artists to make their own LAPP experiments, but we nevertheless see ourselves in a similar vein as traditional conjurers, who never actually divulge all of their secrets. We want to use this book to show our readers what they need—i.e., lots of special equipment and a real passion—to make successful light art. But we also strongly believe that anyone reading this book should be creative enough to take our ideas and

use them to develop a style of their own.

We have talked about making LAPP stop motion animations or videos, although the overall approach would have to be quite different from our current one. Who knows? Maybe we will still be making “traditional” LAPP images five years down the line.

**JLW:** I think this type of photography will continue to develop independently of what we ourselves do. The simple idea of composing a photograph during the exposure has enormous potential, and performance artists can benefit from performing in front of a camera. I can imagine entire plays or ballets performed with the cast dressed in light suits, or martial arts teachers who record their movements for their pupils. The possibilities are endless.

**JM:** And remember: a LAPP image is not virtual or computer-manipulated, but can be recreated in front of a camera at any time by a team of one or two or fifty live performers.

***Has anyone ever thought that your images are computer-generated?***

**JM:** We have been approached in the past by people who have claimed that we make our images using Photoshop. We simply respond by saying, “OK, then show us how”. We have never heard back from any of them—probably because it’s simply not possible or, at least, it’s too complicated. Or maybe people who don’t believe us simply aren’t talented enough to do their own thing. I don’t think anybody we have talked to seriously is in any doubt that our work is of a purely photographic nature. We were once asked to “do a quick performance in our studio,” and we had to explain that we don’t actually have a studio, and that our scenes are always based in the real world. We also had to explain to a very well known manufacturer of lights that we can’t just perform our pieces anywhere, and that LAPP pieces are “real” and unique.

When the early morning mist has cleared and the sun starts to rise, we simply have to wait until the next evening to carry on—provided, of course, that there is enough mist!



[ Wismar · Wismaria · Light Phenomenon ]



[ China · YangYiang · Invasion ]







## Gallery, Part 2



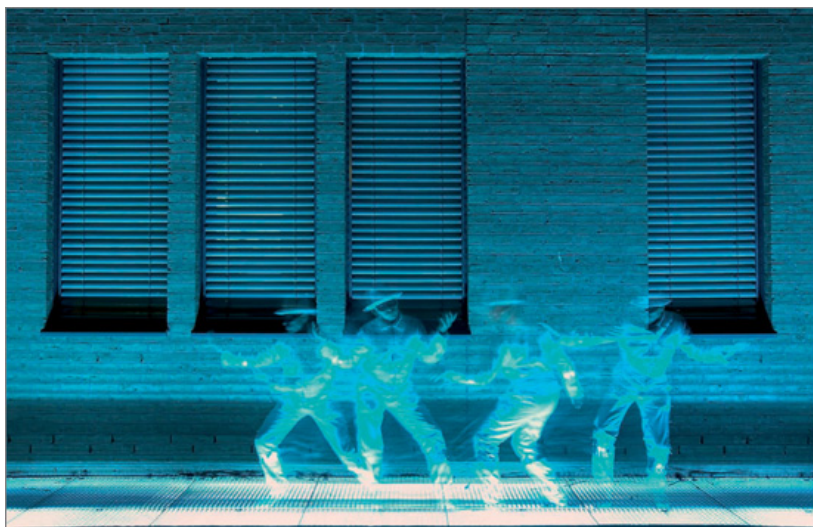
[ Berlin · German Bundestag · River Spree · Untitled ]





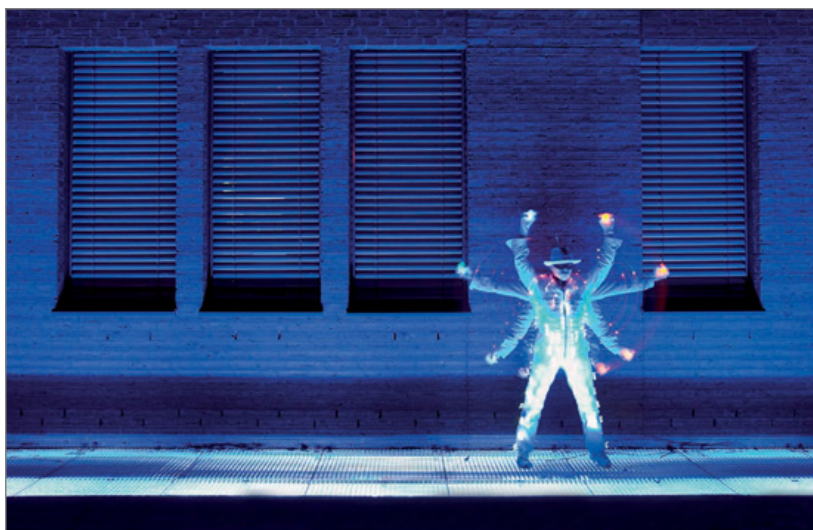
[ Bremen · Space Park · TheSentinel ]





[ Bremen · Unicom · Dancing ]

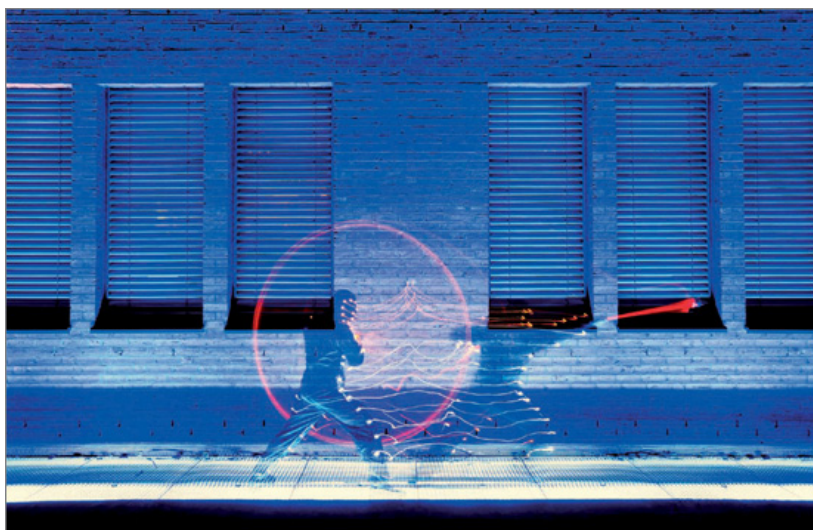




[ Bremen · Unicom · DaVinci ]







[ Bremen · Unicom · Untitled ]





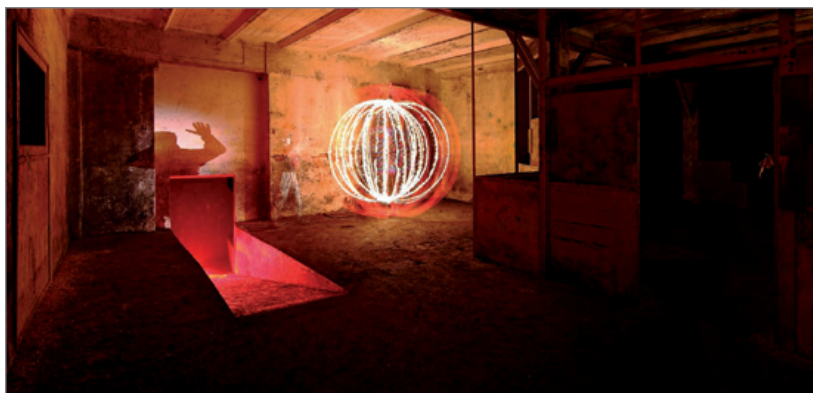
[ Bremen · Unicom · Untitled ]





[ Düsseldorf · Gehry building · Goldfever ]





[ Bremen · Güldenhaus · FirstContact ]







[ Schwanewede · Dolmen · DragonMan ]





[ Schwanewede · Dolmen · WormPlanet ]





[ Schwanewede · Dolmen · TheGhostsISummoned ]





[ Visbek · Dolmen · Kleinkimmen · Untitled ]







[ Meyenburg · Dolmen · StarStoner ]





[ Lilienthal · Wümme · Dam · PyroWheel ]





[ Lilienthal · Wümme · CracklingWheel ]





[ Bremen · Wümme · FireAndNature ]







[ Lilienthal · Wümme · LastWay ]





[ Wümme · Deich · Fireworks · LightSaw ]





[ Mayenburg · Sand hollow · HyperspaceActivation ]





[ Bremen · Harbor · FireAlien ]







[ Bremen · Harbor · Transport ]





[ Ritterhude · Dam · Untitled ]





[ Zermatt · Kleines Matterhorn · Volcano ]





[ Lilienthal · Waterway · PyroWheel ]







[ Bremen · Harbor · WhiteButterfly ]





[ Bremen · Harbor · Untitled ]





[ Schwanewede · Dolmen · Steelball ]

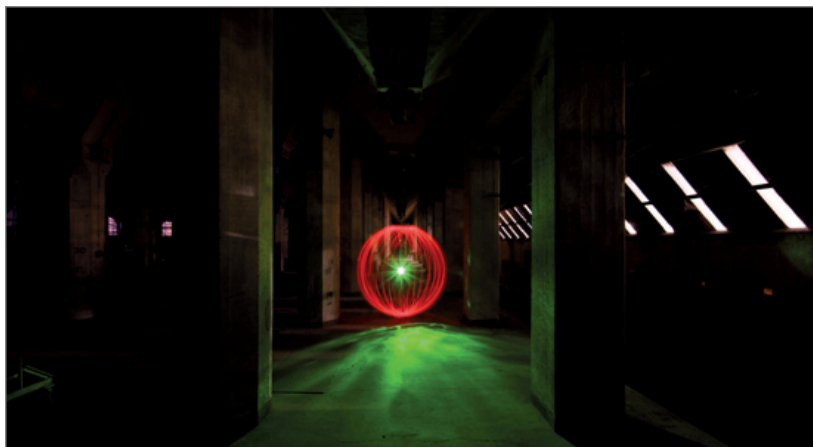




[ Bremen · Speicher XI · LightPlanet ]

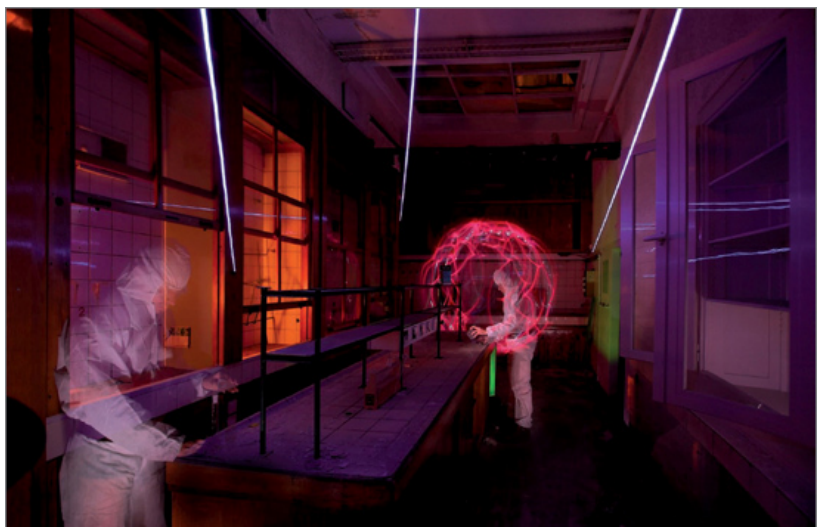






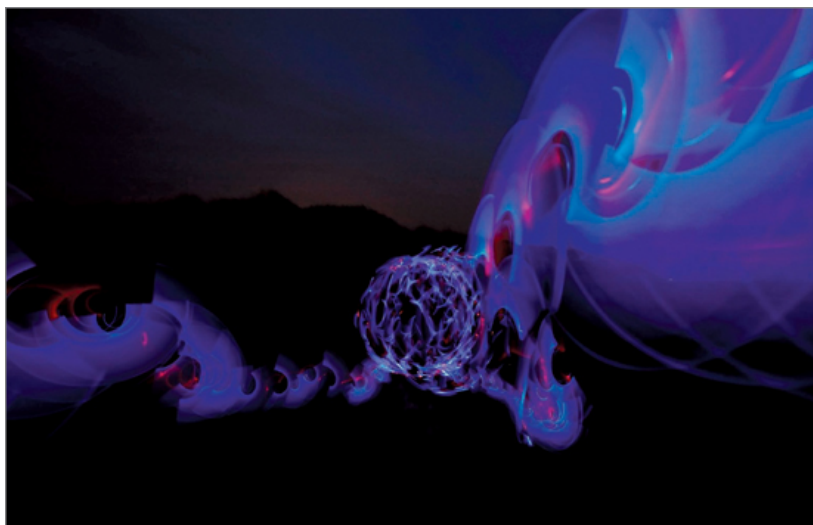
[ Berlin · Basketball field · Communication ]





[ Bremen · Haag · Untitled ]





[ Sylt · Dune · MagicLightBall ]





[ Bremen · Universum · MarsanaHyperterus ]



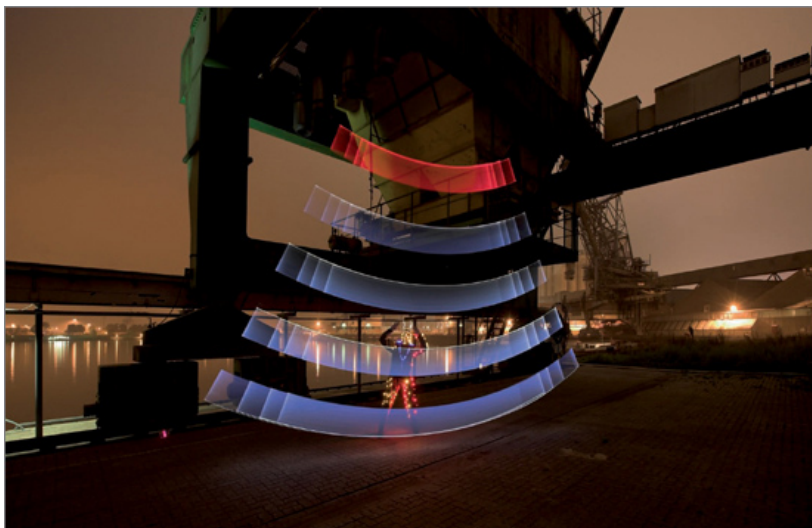
[ Bremen · Universum · RingTransporter ]







[ Bremen · Harbor · StarGate ]



[ Bremen · Harbor · ScanningAlien ]





[ Meyenburg · Rapeseed patch · BurningLightball ]





[ Oyten · Wind generators · NightSuns ]







[ Bremen · Harbor · TransformerVsLighto ]





[ Zermatt · Kleines Matterhorn · Scream ]





[ Harriersand · Beach · UfoExplosion ]





[ Ritterhude · Deichstraße · BallTrain ]







[ Schwanewede · Military forces training ground · UfoVsPanzer ]





[ Oyten · UfoLandingNo124.947.611 ]





[ Hollenstedt · Grainfields · WhereHaveTheyGoneTo ]





[ Lilienthal · Wümme · LightWheelWire ]







[ Höftdeich · Wümme · TimeMachine ]





[ Meyenburg · Transformation ]





[ Borgfeld · Wümme · LightDiscs ]





[ LaPalma · Coast · ExitToEndOfTheWorld ]







[ Lilienthal · Wümme · Storm · Lightwheel ]





[ Lilienthal · Bridge between trees · ThinkingWaves ]





[ China - Detian · Waterfalls · X21 ]



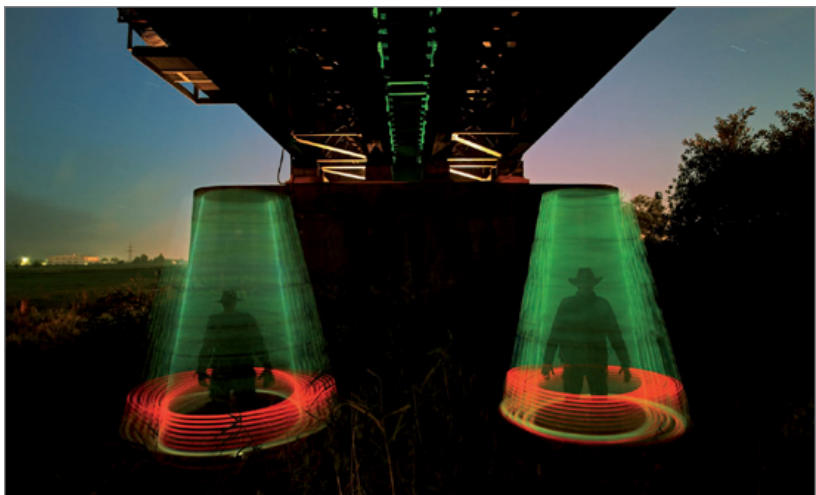


[ China – Detian – Mountain – X21 ]









[ Dreye · Railway bridge · WaitingForTheNextTrain ]



# Lapp 03

# Technique

## The Look and Feel of a LAPP Image

LAPP includes elements that were discovered by accident, but is by no means a fundamentally random process. The central question that we ask ourselves before every session is: “What is the message that we want to convey?” We consider whether we are aiming to produce a realistic image or an unrealistic one. Do we want to portray something strange or something familiar? Should the results be subtle or harsh? Should the overall impression be cool and clinical, or warm and harmonious? A LAPP artist has to be capable of “reading” a location to produce the best possible results using the available scenery. A project always begins with a single idea. One of us says to the other: “You know the old brickyard at the edge of town?” and before long we are planning how to get a UFO to land there, or how we can make it look as if we are cutting stone with a circular saw made of light.

We have a huge stock of ideas waiting to be put into practice, and our notebooks are full of concepts that are still at the preparatory stage. Even if the sketches themselves appear simple, the technical know-how involved in turning them into reality using our special kind of equipment is extremely important. Many effects depend on the very specific behavior of certain light sources. For instance, did you know that LED light is of a frequency that is made visible by digital image sensors? The human eye compensates for this frequency the same way it compensates for the inherent flicker in a TV picture. Or, at least, it does until you begin to move the LED lamp very quickly. The image sensor itself is passive, and simply records all frequencies that are presented to it without compromises or filters. This often results in strange effects that are, fortunately, not quite as unpleasant as those you get when you film a TV screen.

Every light artist should make test runs with all the tools she is intending to use before starting a session. We meet separately to rehearse our performances and try out new equipment, although we often find new ways to use old tools, too. It is astonishing just how many ways you can use a single lamp to produce different

shapes and effects. Even non-dimmable lamps or the anemic light produced by weak batteries can be used to expand your repertoire of effects.

## Selecting Equipment

Simple light sources are often sufficient to produce impressive effects, while at other times we have to get out our “big guns” to produce the effects we are looking for. The equipment we use depends a lot on the location, but we usually use several cars and hand carts to bring as much gear as we can as near to the set as possible. There is nothing more irritating than not having the right lamp available at the critical moment. If you are just starting out making LAPP images, you will probably find enough light sources lying around at home just waiting to be pointed at a sensor. Flashlights, gas lanterns, sparklers, or garden flares are all suitable tools. Battery-powered lights or fire can be used anywhere, while other lamps are difficult or even impossible to transport. However, many logistical challenges can be overcome using willpower and appropriate equipment. If you need the 220-volt current from a gas-driven generator to power your neon tubes in the middle of nowhere, you need to be fit and prepared to spend some money. In situations like this, looking for an extension cord or a power outlet simply doesn't help.

Anyone who is interested in portable light sources and modern rechargeable battery technology will sooner or later come across LED LENSER's state-of-the-art products. The power that can today be packed into a single pocket lamp was unthinkable ten years ago. If necessary, a single X21 can light up a whole forest clearing for half the night—a decade ago, you would have had to take huge, expensive battery packs along to produce the same amount of light for just a few minutes. Portable lamps with focusable beams are still one of our most important standard tools, although we also use LED LENSER prototypes that produce warm, colored, ultraviolet, and strobed LED light, and others that are dimmable or programmable. Whichever technology we use, the effectiveness of all this sophisticated gadgetry still depends on the creativity and artistry we bring to bear while the shutter is open.



*A peek behind the scenes: Each subject requires individual lighting tools and a matching equipment*

# **Planning and Executing an Idea**

## **Finding and Preparing a Location**

Even if their sheer brightness makes the light objects the optical centerpiece of a LAPP image, they still lack meaning if the background doesn't tell a compelling story to support them. Many light artists make the mistake of putting all their energy into the light performance while using their own garden or the local park as a set. So how do we look for the right location for a LAPP shoot?

We spend a great deal of time and energy looking for appropriate locations. Nowadays, there are many Internet forums that list ruins, industrial wastelands, and dilapidated old houses, and some even include galleries to help you judge a location in advance and develop new ideas for a performance. But friends and acquaintances are still the best source of information, and most people know someone who has a friend who knows someone else who ...

We have found that the owners and operators of locations are quick to support us once they have seen our images and we have explained what we are trying to achieve. This gives us a free hand to work undisturbed on our chosen set. But things weren't always that easy. When we were starting out, No Entry signs had a special appeal, and we often ended up in seriously dangerous situations. Exploring industrial ruins in the dark is risky, as this spectacular photo shows. One false step could have sent the photographer or the performer plunging 50 feet into the dark, quite possibly with fatal consequences. How many lone photographers' skeletons will be found in the future in abandoned warehouses around the world?





*The location as seen in the LAPP photo*

## Setting Up a Scene and Taking Test Shots

We look for the best angle of view at the start of every session, usually using just our hands to form a viewing frame. Once we have decided on the location for the camera and the shooting angle, we attach the camera to a tripod and take our initial test shots. We often use programmed auto mode for the first few shots but, once we have worked out the rough look of the piece, we switch to manual mode to make our first timed exposures. It can take as long as two hours and as many as ten test shots before we start to use the camera settings we think will produce the right results. During this phase, we try out different positions and check the results on a notebook computer. The camera's monitor is simply too small to adequately check every detail of a composition.

Once we are satisfied with the basic setup, we begin to meter exposure for the surroundings. This is where we try to ensure that we include all residual light and natural light sources. Moonlight produces a maximum of 0.25 lux of additional brightness in a normal photo, but can look like a floodlight in an image made using a very long exposure. Once we are happy with the overall look of the set, we can start the actual performance, which we set up to match the background lighting. Painting with light produces similar challenges to painting with a brush, in that some objects cover others, and strong colors dominate weaker ones. We plan a

precise sequence of steps that either works around these obstacles or uses them deliberately to underscore a particular effect. We then perform our planned routine to “paint” our effects onto the image sensor.

If the location lighting isn’t too bright and doesn’t limit the length of the exposure we can make, we use the lock function of our remote release to keep the shutter open for as long as we like. This gives us additional time and freedom of movement to make our live composition.



*The location prior to the installation*

## Background Stories





~~Beiden~~ Me Up

~~Date:~~ 11, 2008

~~Time:~~ 5 CET

~~#007221~~ Sme:

~~58° 15' 26.63" N – 8° 35' 51.47" O~~

~~04.5.05~~ Temperature:

~~Canon~~ EOS 5D

~~Canon~~ EF 16–35 mm f/2.8 L II USM

~~Exposure~~ 20 seconds

~~Ning~~ Miedza

We first created the “Light Tube” look in July 2008. We wanted to create a cylinder of light that was wide enough to contain the person being “beamed”. There was a lot of thinking involved before we worked out how to construct the shape the way we had imagined it.

Our “transporter” was designed to swallow anything we put in it, and we spent several fruitless nights before we managed to produce a smooth shape that was symmetrical around its central axis. The result of our experiments was a huge, perfectly circular cylinder. Nowadays, we are able to produce the cylinder in just about any length we want, and we can make the semi-transparent outer walls any color we like. This effect was only possible because of the large amount of collective mental effort we put into it.



### ***Title3 Freddy's Coming***

**September 8, 2007**

**Uim23 CET**

**POODLESme:**

**Б8801129.27" N - 8° 43' 54.34" O**

**Orbits & Est. Temperature:**

# CameraEOS 5D

**Canon EF 16-35 mm f/2.8 L II USM**

**ExposedTime:**

**Ning Miedza**

"I love it when a plan comes together..." was the feeling we had in the pits of our stomachs as we drove home after this night's shoot—one of our first working together. We had already spent days discussing the images we wanted to make at this fantastic location. Jan had already been there several times on his own, so I was able to get an impression of the surroundings from his older pictures. One hundred days had passed since the creation of the first LAPP image and this was the real beginning of our joint endeavors. This was also the first image that contained two people. We had a detailed plan that we had drawn up the day before, but we still had to find the right location within the building before we could start our performance. The large holes in the ceiling were the clincher. Our scenario was of a hobo warming himself in front of a fire as "Lightman" enters the scene and surprises him. We wanted to produce dynamic, but not chaotic, shapes and colors. The image was made using a relatively short exposure time, but it nevertheless took us the whole night to set up and complete the shot.





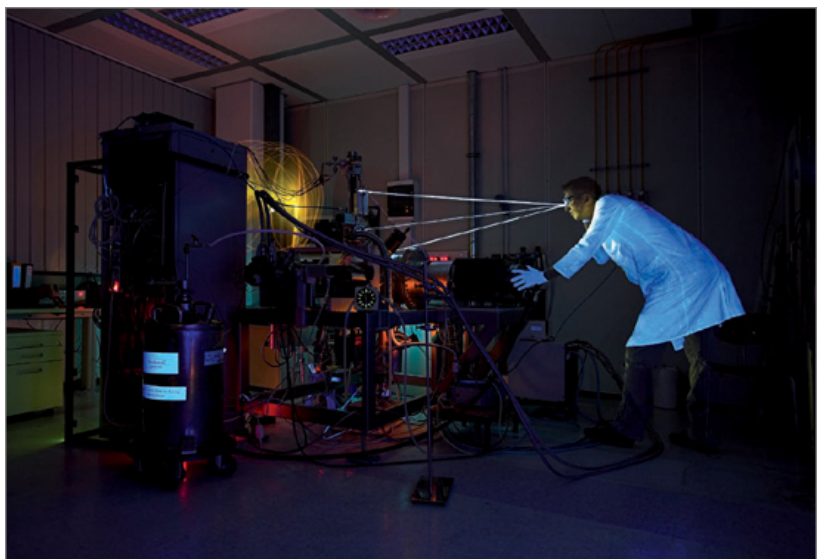
***Supernatural Breakdancer******August 29, 2008******02:55 CET******#5622ALSne:******58° 13' 54.75" N – 8° 35' 25.26" O******Inside Temperature:******Canon EOS 5D******Canon EF 16–35 mm f/2.8 L II USM******Exposure Time:******Ning Miedza***

This location belongs to a friend of ours, and we have performed several successful and surreal shoots there. The building is the outer shell of an old dairy product factory that is due to be demolished in 2011. We particularly like the atmosphere that this kind of industrial monument exudes. The building is not a ruin and it feels as if the workers and their machines have simply moved on. We walked around and tried to imagine what it must have been like when the room was being used for its original purpose. There are thousands of square feet of smooth, tiled walls and level floors, which reflect and refract our lights in multiple directions. The building is full of smooth, uninterrupted space. The place we chose for our shoot was the distribution center where all the tubes and connections within the building met. This particular part of the building had a large, smooth section of floor that we used to create our complex patterns. We laid out over 150 meters of cord and studied the floor in detail to prevent the shapes from overlapping during the performance. The cool atmosphere produced a strange, exotic look that is vaguely reminiscent of an underwater photograph.



**Time** ~~Attack~~  
**Date** ~~ber~~ 18, 2009  
**Time** ~~2~~ CET  
**Altitude** ~~73~~  
**Location** ~~73~~" N – 8° 26' 57.03" O  
**Outside Temperature**:  
**Camera** ~~EOS~~ 5D MK2  
**Lens** ~~EF~~ 14 mm f/2.8 L II USM  
**Exposure time**:  
**Ring** ~~Miedza~~

Oldenburg in AD 1192: Christian von Oldenburg, a crusader at the time of the Third Crusade, returned to his ancestral home only to be murdered by his courtiers. A small Cistercian chapel was founded in his memory and was eventually followed by a larger monastery, built at Hude in 1232. The ruins of this second building are gigantic and radiate an atmosphere that tends to make visitors feel inexplicably uneasy. Stone Age burial sites have a similar atmosphere, and many churches that were built at the beginning of the 4th Century AD were built on such sites, which are often also places where underground watercourses meet. Such locations make us feel simultaneously jumpy and alert. We were fascinated by the place and felt Christian von Oldenburg's presence as we walked around the ruins. Eventually, as the early morning mist lifted, we were able to visualize him, standing in the north arch of the monastery's church. A whole armada of luminescent rays forced their way through the monastery's enormous walls and there he stood, clearly outlined against the night sky.



***EHLS – Keeping an Eye on Science******Date*** 25, 2008***Time*** 7 CET***Address:******Coordinates*** 53° 32' N – 8° 51' 7.52" O***Relative temperature:******Camera*** EOS 5D***Lens*** EF 16-35 mm f/2.8 L II USM***Exposure time:******King of Medza***

On our search for a suitable subject and location for our entry in the German Scientific Photography Prize in 2008, we ended up calling our friends at the University of Bremen. The competition theme for that year was “making science visible.” We took our chances and got right up close to some real scientific experiments in a real laboratory, courtesy of Prof. Dr. Petra Swiderek and Dr. Arno Mann. The Electron Energy Loss Spectrometer that Petra and her team had built consists of a lot of precious metal and large numbers of cables and tubes that look pretty unspectacular in the plain, neon light of the lab. However, the machine is capable of conducting complex processes that the team meticulously observes and records for periods of weeks and months at a time. We spent a whole night in the lab with our two scientists and portrayed the spectrometer in a completely new light. We particularly wanted to emphasize the scientist’s analytical gaze and we also wanted to make an “electron” visible to the viewer. We used fluorescent cord to portray the “rays” coming from the scientist’s eyes and a rotating surface lamp to visualize the electron. The entire performance consisted of 14 separate steps and gave the otherwise dull-looking machine a completely new feeling of magic and depth.



**~~Communication~~**

**~~March 18, 2008~~**

**~~0001 CET~~**

**~~2008.03.18~~**

**~~52° 01' 20.08" N - 13° 26' 18.00" O~~**

**~~Outside Temperature:~~**

**~~Canon EOS 5D~~**

**~~Canon EF 16-35 mm f/2.8 L II USM~~**

**~~Exposure Time:~~**

**~~Narrator: Wöllert~~**

The remains of the Böhmischen Brauhaus brewery building are located on the Landsberger Allee in Berlin. This image was created in the works' basketball court. According to the scoreboard, the last game that took place there ended with a score of 49:50. The building is located just a few hundred yards from the famous Velodrom in the center of the city, and the whole place is covered in graffiti, giving it a slightly threatening atmosphere.

The building is partially burned down and the doorways have been walled up. We found a man-sized hole in one of the walls, made by a previous visitor who had obviously had the foresight to bring a chainsaw along.

We had received a tip that the building might suit our purposes, but we didn't know what to expect as we clambered inside, equipped with headlamps and a few other bits and pieces. We started by taking a few photos in the derelict washrooms on the ground floor.

After an hour's exploration, we found the basketball court on the next floor up. Some of the windows were missing and others had been boarded up, making it pitch dark inside. We used an LED LENSER X21 high performance flashlight to illuminate the background and chose a low camera position in order to capture as much detail of the floor as we could.

If you look carefully, you will see that the details tell a story of the events of recent years. There are aerosol cans, beer crates, and handyman's tools lying around. The once beautiful parquet

flooring has mostly been removed, probably to be used as firewood.

The basic idea for the image was to create two “Light Balls” that are communicating with each other in the context of the basketball court. We encountered some problems getting the background lighting right—it was either too dim or produced shadows that caused harsh divisions in the space within the room. In the end we decided to light the background indirectly using reflections from the wall and the ceiling. We positioned small additional lights in the neighboring rooms to accentuate the overall feeling of space.

The results were pleasingly surreal, and the photo’s combination of warmth and simplicity continues to generate a lot of positive feedback.





**UFO:** Landing  
**Date:** 12, 2008  
**Time:** CET  
**Location:**  
**Coordinates:** 53° 47' 57" N – 8° 51' 51.92" O  
**Outside Temperature:**  
**Camera:** EOS 5D  
**Lens:** Canon EF 16-35 mm f/2.8 L II USM  
**Exposure Time:**  
**Narrator:** Wöllert

Lake Werder used to be an arm of the River Weser, but was enlarged and cut off during a flood in 1981. Today, it is Bremen's largest natural bathing lake and is artificially flooded via two man-made inlets. This photo was taken at the eastern inlet, where large rocks have been placed in the water to reduce the speed of flow so that fish can swim against the current.

It was these rocks that attracted my attention and caused me to stop here for the first time. The reeds were lit by the soft moonlight, thin fog covered the inlet, and the surface of the water was perfectly still. Foam on the water's surface, caused by the water passing the rocks, produced rotating patterns in the water in the catch basin beyond the weir. The gurgling water provided a relaxing melody to complete the scene.

The edge of the forest, the river running parallel to the trees, the rocks, and our UFO give this image a feeling of multi-dimensional depth. We produced a lot of unsuitable (and embarrassing) UFOs in the course of the shoot, but they are staying secret!

We started shooting at 10 pm, but we still weren't satisfied with our results until the clock struck four in the morning. We created our final UFO shape shortly before dawn, and this has become a standard element that we still use today. The rising sun provided us with sufficient natural background light and the UFO itself illuminated the immediate surroundings.

Luck always plays a major role in any success story, and on

this particular day, the sun provided us with a gorgeous sunrise that colored the clouds a wonderful shade of red.

We have continued to develop this type of UFO figure, but the basic curved saucer shape remains the same as the one we produced back then.

Maybe we will be seeing more UFOs landing in the vicinity of Bremen during 2010 ...





**Elektron**

**Date:** 17, 2007

**Time:** 5 CET

**ISO:** 200

**Location:** 53° 01' 28.06" N – 8° 50' 45.40" O

**Outside Temperature:**

**Camera:** EOS 5D

**Lens:** Canon SP AF 28-75 mm f/2.8

**Exposure Time:**

**Photographer:** Wöllert

This photo was one of the earlier LAPP works, made in 2007. The reflection on the surface of the interconnected pools, the surreal effect of the ambient street lighting, and the still of this particular night were the reasons I chose this location. I was still working on my own at the time, when the actual performances involved a lot more advance preparation than they do when we are working as a team.

The Universum is a science center near the university in Bremen and is meant to look like a breaching whale with its mouth open. Personally, I think it looks like a UFO that has drilled its way into the earth's surface during an emergency landing.

In 2007, the Universum was extended to include an exhibit that allows visitors to conduct practical experiments with the elements, and the scenery for this image is part of that exhibit.

I have forgotten the exact camera settings I made at the time but we recently discovered that I used an astonishingly short exposure time of eight seconds. The complexity of our contemporary performances makes such short exposure times unthinkable.

This performance was planned in such a way that the shutter closed before I exited the frame. This means I had just eight seconds to release the shutter, get into position, switch on my lamps, and perform my moves. Recently, while sorting through some RAW image data, we discovered that I actually managed to create the finished photo on the second attempt.



**Mad:Lightman**  
**Date** 6, 2009  
**Time** 4 CET  
**859213**  
**Location** 50.11° N – 8° 47' 25.40" O  
**Outside Temperature:**  
**Camera** EOS 5D MKII  
**Lens** EF 14 mm f/2.8 L II USM  
**Exposure time:**  
**Narrator** ardo Wöllert

In October 2009, with the help of Mathias Siebert (a local radio reporter), we produced a five-minute TV spot about LAPP. The TV crew accompanied us for a day and a night, and this photo was produced at the end of the session.

Our location was the old “Güldenhaus” rum distillery in Bremen. Two friends of ours who were playing paintball there gave us access to the premises.

We originally developed the Mad Lightman scenario for an advertisement for Diesel jeans, and we extended and tweaked the performance for Mathias Siebert and the TV crew.

The abandoned Güldenhaus building is dirty and dilapidated and, at the time, the chances of meeting some of the homeless people who slept there were quite high. We often heard people leaving via the back of the building when we entered at the front, and it took us a while to realize that the sounds came from graffiti artists we had disturbed. The spraying community has definitely added to the charm of the place, and their artwork perfectly matches the atmosphere of decay that surrounds the building.

In one of the storerooms, next to 2,000-liter oak rum barrels, we found a cable drum that we used to conceal our “Planet Blaster”—a light sphere with 120 built-in lenses. We used a fog machine to create some additional atmosphere and to emphasize the light rays emerging from their hidden source.

We had previously discovered that the marks made by

paintball impacts react to ultraviolet light, so we went through the room with a UV tube as part of the performance, which made the spots on the walls visible in the finished image. To complete this complex performance, “Mad Lightman” climbed onto the cable drum and switched on his suit and face lights.

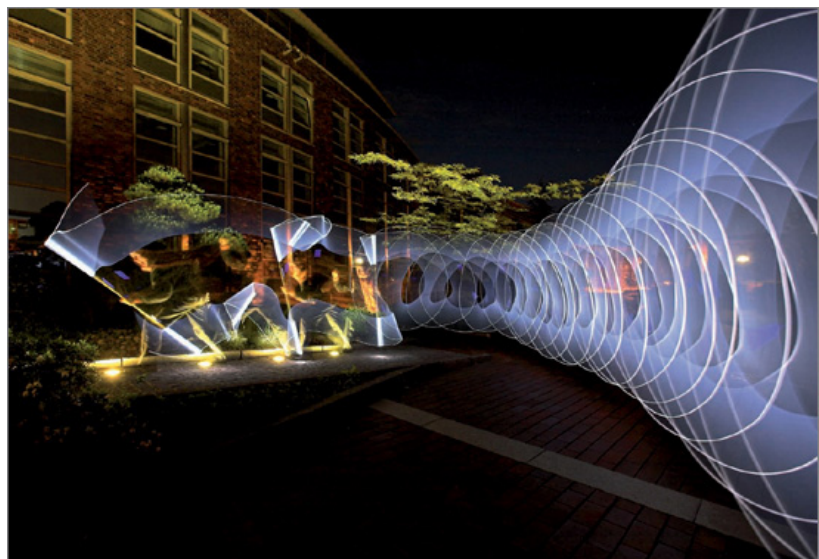
At the time of going to print, the TV spot was available for download at the following URLs:

<http://www.youtube.com/watch?v=y0ma-3ywxZA>

<http://www.radiobremen.de/mediathek/index.html?id=019219>







**Lightman Fighting**

**Date** 5, 2007

**Time** 7 CET

**Exposure Time:**

**Location** 46.55" N – 8° 50' 58.62" O

**Outside Temperature:**

**Camera** EOS 5D

**Lens** Canon SP AF 28-75 mm f/2.8

**Exposure Time:**

**Artist** Ingrid Wöllert

I made this image at the technology park at the University of Bremen five days after the creation of the very first LAPP photo. The technology park was founded in 1988 and is home to various hi-tech companies and institutions, including the German Center for Artificial Intelligence Research and the Institute of Applied Beam Technology.

I chose this location because of the halogen floodlights built into the ground. Architecture, nature, light, darkness—my favorites!

Because I was shooting alone, I came up with the idea of capturing myself in various positions using the location's own ground lights. I timed things to allow myself to enter the picture from one side carrying a rotating flat lamp, and so that the shutter closed while I was still in the frame.

This image shows how the creative use of simple tools can produce remarkable images. The composition and the performance use a combination of movement, energy, illuminated architecture, and a pinch of science fiction to produce an image with an unusually dynamic feel. This image was an early stage in the development of the "Lightman" idea and, although the suit itself was not lit at this stage, the image creates a strong impression of a figure made of light.



[ Lilienthal · Wümme meadows · TheEye ]



# Lapp 04

# **The Making of ...**

This chapter will give you some insights into the process of creating a LAPP image. We originally shot the first scene to document our work for our own archives. We staged the second piece exclusively for this book, using a location that is easy to duplicate and an easy-to-follow guide covering the creative and technical steps involved.

## **How a LAPP image develops**

It was late afternoon, and we were driving through the northeast German countryside when we noticed a large chimney in the distance. Chimneys in this part of the world usually indicate the presence of industrial ruins, so we took a 15-mile detour and ended up in Wismar.

Sure enough, the building lay just a few meters from the off-ramp, and a signboard told us that the building was a disused paper factory. The front of the building was securely boarded up and the doorways had been bricked in. Grass was growing everywhere and nature had already reclaimed some of the building for itself. We could hear a brook that had been dammed to power the factory's mills in the distance. A large wooden door at the back of the building stood slightly ajar and gave us our first look at the interior.

We could see a production line and we were immediately attracted by the old machinery. We started shooting at around 6 pm, and the light coming through the windows gave the rusted surfaces a pleasant glow.

We used our Canon EOS 5D and set our 16-35mm zoom lens to its widest setting to give us the broadest possible angle of view. The production line and the gloomy atmosphere provided us with a great background and the wide-angle frame gave us the potential to create a feeling of great depth in the scene.

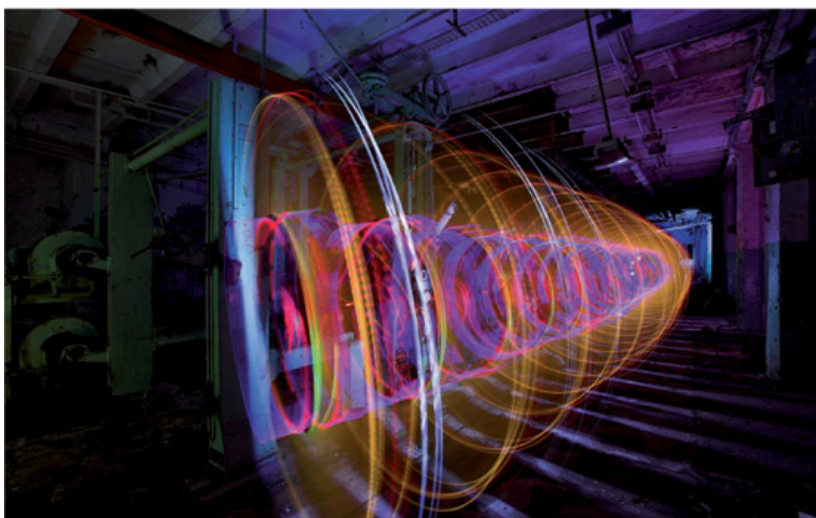
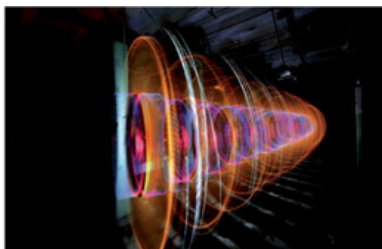


We waited an hour or so until the ambient light had dimmed a little and began to position our lights. We placed warm lamps behind some of the rollers and fixtures to enhance the overall feeling of space.

Darkness fell at around 10 pm, allowing us to begin our performance. We had imagined a huge roller made out of light that reflected the production process that once took place in the building. It took us several hours to get the final paper-movement-roller effect we wanted.

As a final step, we added some additional background lights to add an extra dimension to the photo's depth. We finally got the result we were looking for at around three o'clock in the morning.





## Step-by-step Guide to Creating a LAPP Photo

The following sequence of images illustrates the basic steps involved in creating a LAPP image and explains the effects produced by various different lighting elements. The techniques described are universal, regardless of the type of subject you are shooting.

You can only produce sufficient detail and genuinely luminous results if you are skilled enough to “play” with the various elements in your image. For example, a Light Ball doesn’t have to be the main element of your image, and can just as easily play a subsidiary role in the overall composition.

We deliberately chose a simple “at home” scenario to help you get started. It is important to develop an eye for a location and the lighting in any given situation. It is also essential for you to know

how your camera acts and reacts when you make certain settings, and you will need to practice operating your equipment in the dark. If you build your own lighting equipment, always test it before you start your shoot. LAPP locations are often remote, and experience has shown how irritating it can be when your gear doesn't work as you expected, especially if you have just carried it to the top of a 12,000-foot mountain!

The examples here are intended to help you develop your basic LAPP technique as well as your eye for different light sources and performance elements. This way, you will have the skill and the freedom to perfect your own ideas when you are out and about.

You can only plan and execute a LAPP project if you take the individual steps we have outlined. You will nevertheless need to have a strong concept of how you want your piece to look if you want to be sure of using the right tools. It always helps to make sketches and notes of your ideas, which you can then use as a script when you are on location.

This sequence is relatively simple and we hope it will inspire you to make your own, more complex images. Small details are important, and subtle images that use detail to attract and hold the viewer's interest are often the most effective.

We used a location with physical depth to allow us to convey the idea of performance and background detail. We took the first shot at dusk, without direct sunlight.

All of the photos in the sequence were taken using a Canon Rebel T2i and a Zeiss Distagon T\* 21mm f/2.8 lens. The camera was set to ISO 100 with auto white balance and the flash was switched off. We used matrix metering, manual exposure mode, and manual focus.



## Step 1

Here, you can see the location at dusk. There is a large flat surface for the performance, and the vanishing point created by the windows, the mailbox, and the door give the scene added depth. The hedge and the steps in the foreground become part of the stage in the final image (1/4 second at f5).



## Step 2

As it became dark, the street lamp in the background cast the shadow of a chestnut tree onto the house wall. This divides the performance area into a foreground area with floor lights and the shaded area at the rear that contains the light sculpture. We used a pocket flashlight to light the grass throughout the entire depth of

the frame. This broadens the field of view and adds to the details that would otherwise remain hidden in this kind of light (15 seconds at f8).



### Step 3

This version includes an additional lighting element that highlights the hedge in the foreground. We also switched the exterior house lights on and off again during the exposure. The smaller aperture and the slightly shorter exposure time cause the shadow of the tree to disappear completely (13 seconds at f20).



### Step 4

Here, the entire background is dark and the viewer's attention is

concentrated on the foreground. The only addition here is a subtle, warm highlight under the deck, provided by an LED flashlight. All other lights were switched off. A medium aperture and a long exposure time once more accentuated the light from the street lamp and the shadows it produced on the wall. By this time, the leaves on the tree were blowing gently in the wind, giving their shadows soft edges (61 seconds at f9).

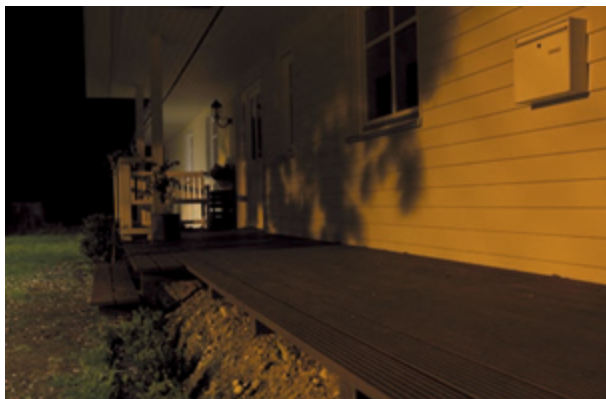


## Step 5

In this version, the strength of all the lighting elements is reduced and we added a warm light in the performance area on the deck using a powerful flashlight.

We waved the lamp gently to prevent a visible light cone from forming. This “soft” lighting also allows the light from the street lamp to once again light up the wall (16 seconds at f9).

If a cold LED flashlight is used, the light mood becomes distinctly cooler because of the different color temperature.



## Step 6

Here, the overall depth of the location is emphasised. We lit the wall beyond the door and the entire ground area between the mailbox and the far corner of the house (a distance of about 60 feet) with warm LED light. A medium aperture provides sufficient depth of field (45 seconds at f9).



## Step 7

This stage emphasizes the overhanging roof and the background, strengthening the perspective and increasing the amount of visible detail. Here, the combined lighting effects are still too prominent (30 seconds at f5.6).



## Step 8

This image includes the planned performance, which, along with the floor lighting, emphasizes the depth of the scene. The grass was illuminated with warm light and the soft shadows of the leaves are also visible. The viewer can visualize the starting point of the performance (outside the frame), and automatically follows its lines to the living “Light Ball” at the end of the verandah. Because the viewer instinctively looks no further than this point, we didn’t use any additional background lighting accents. Elements like this Light Ball can easily lose their intensity if the background lighting is too bright (86 seconds at f9).







# **LAPP-PRO on TV, Gestalt, and Kinesthetic Intelligence**

## **Matt Crawford on LAPP**

LAPP-PRO makes the rest of us feel something. We felt something when we visited them and it seems like more and more people are starting to feel the power of their images. It's not hard to understand why folks are attracted to LAPP-PRO's images. It's exciting to see that they have gotten some TV play in their hometown of Bremen.<sup>1</sup>

LAPP-PRO creates some of the most compelling and, dare I say, astonishing pictures I have seen. They are full of psychic energy and gestalt. Gestalt is often defined in English as a physical, biological, psychological, or symbolic configuration or pattern of elements so unified as a whole that its properties cannot be derived from a simple summation of its parts.

“Gestalt psychology is based on the observation that we often experience things that are not a part of our simple sensations... Furthermore, say the Gestalt psychologists, we are built to experience the structured whole as well as the individual sensations.” (Dr. C. George Boree).<sup>2</sup>

Now, I think these are apt descriptions for light painting in general, but especially for the images LAPP-PRO create. Their pictures are much more than the sum of their parts. The gestalt of LAPP-Pro is seen in each gesture, in every “brush stroke” they make. The unique nature of LAPP is that it is a whole-body, kinesthetic, action/experience that is simultaneously technical, creative, and developmental. Bodily-kinesthetic intelligence is explained by Gerald Grow, who discusses the work of Howard Gardner:

The core elements of the bodily-kinesthetic intelligence are control of one's bodily motions and capacity to handle objects skillfully (206). Gardner elaborates to say that this intelligence also includes a sense of timing, a clear sense of the goal of a physical action, along with the ability to train responses so they become like reflexes. Along with these, you often find a high degree of fine-motor control and a gift for using whole body motions.... Gardner cites a dancer's conviction that we all have the capacity “to

apprehend directly” the actions, feelings, or dynamic abilities of other people, without help from words or pictures (228).<sup>3</sup>

These statements are pertinent to the analysis of LAPP-PRO's creations. We can “apprehend directly” the actions and dynamic abilities of JanLeo and Jörg by deconstructing their motions. Light painting allows us to deconstruct the artists' motions and the complexity (or simplicity) of their movements as they relate to the “whole.” Kinesthetic intelligence and the “clear sense of the goal of a physical action” are definitely things we experienced in our time with LAPP. The “goal” of their actions is both technical and conceptual and it is the unique interaction between these elements that makes LAPP so extremely and aggressively impactful. They have a “clear sense” of the image they want to represent as well as the “high degree of fine-motor control and a gift for using whole body motions” to make it happen. The magic comes from the intuition and psychic sensitivity to the subconscious, emotional, and psychological representations in their pictures. A simple technical execution of light painting does not ensure an emotional response in the viewer in the same way that pure concept and gesture do not ensure a quality image. However, the thoughtful juxtaposition and interaction of these skills really does manifest a gestalt that evokes both thoughts and feelings of a “higher order.” As viewers, we experience and then interact with their art on the same level at which it was created.

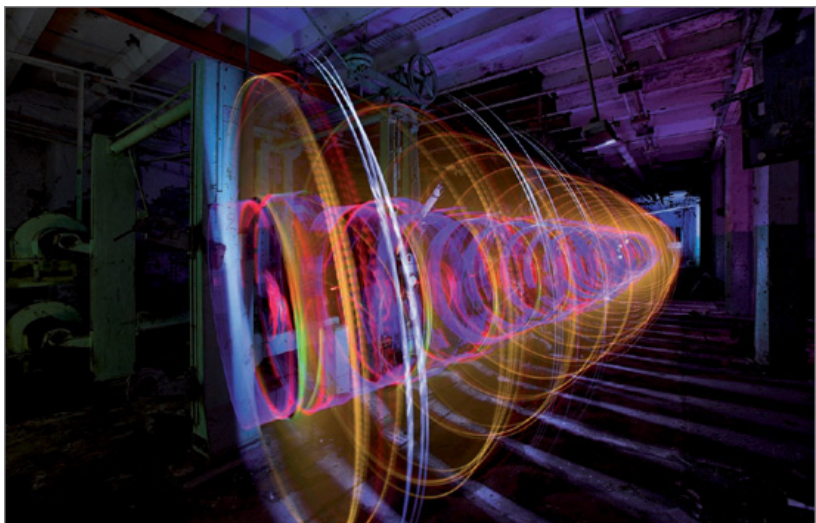
There is most definitely a “curve” to being able to analyze and fully experience LAPP-PRO's art. The beauty is that, classically, the journey literally IS the destination. Light painting marks the artists' literal physical passage and “kinesthetic intelligence.” Like anything else, it takes practice; practice to make and practice to completely appreciate. Why does it take practice to appreciate it? Well, one of the first questions people often ask when they see light painting is “how did they do that?” and sometimes the answer is simple. But with LAPP-PRO's creations it is a complex process that is hard to decipher and challenging to deconstruct. It requires some serious thought and analysis to begin to imagine exactly how these pictures could have possibly been made. We, as viewers, imagine ways in which they must have moved, lights that could have been used, etc. We create pictures, movies, in our minds as we imagine and “re-trace” their movements in four dimensions. We “re-live” the journey they took through the frame–

through time—to make the picture and we begin to “apprehend” their feelings and/or “dynamic abilities.” Remember, the journey is the destination. When watching light painting being made in real time we only see the light in the literal and proverbial “Now.” We experience the process as a series of motions illuminated in increments and gone when the shutter clicks with no “real” image left. The picture captures the motions, the journey, and when we see the image our understanding of the meaning of the artists’ actions becomes clearer while simultaneously evoking something completely different than what we feel while watching the process.



[ Bremen · Güldenhaus · Prayer ]





[ Schwerin · Paper mill · LightRoll ]



Another important element to the gestalt is the interaction with the environment, but I'll save that for another article.[4](#)

## Chapter 12

1 <http://www.radiobremen.de/mediathek/index.html?id=019219>

2 George C. Boeree, <http://webspaces.ship.edu/cgboer>

3 Gerald Grow, Writing and Multiple Intelligences. A Working Paper by Gerald Grow, Ph.D., School of Journalism, Media & Graphic Arts Florida A&M University, Tallahassee FL 32307 USA <http://www.longleaf.net/ggrow/7In/Bodily.html>.

The page numbers in brackets refer to: Gardner, Howard. Frames of Mind: The Theory of Multiple Intelligences, 1983. New York: Basic Books, 1985.

4 Matt Crawford is a light artist and owner of the website <http://www.luminarymovie.com>, a forum dedicated to the international light painting scene. His film Luminary—The Movie shows light artists and their work from all over the world, and includes a contribution by JanLeonardo Wöllert and Jörg Miedza.